

STN search for 10765,797

(FILE 'HOME' ENTERED AT 15:49:50 ON 15 MAR 2005)

FILE 'CPLUS' ENTERED AT 15:50:01 ON 15 MAR 2005  
L1 637015 S INFRARED OR IR OR INFRA RED  
L2 7711 S L1 AND DYE  
L3 309 S L2 AND FLUORO?  
L4 10 S L3 AND PERFLUORO?  
L5 0 S L4 NOT L3  
L6 44388 S LITHOGRAPH? OR PLANOGRAPH?  
L7 6 S L6 AND L3  
L8 0 S L4 AND L6

=> s l3 and plate  
309879 PLATE  
L9 11 L3 AND PLATE

=> s l9 not l6  
L10 6 L9 NOT L6

=> d all 1-6

L10 ANSWER 1 OF 6 CPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:216128 CPLUS  
DN 136:264488  
ED Entered STN: 22 Mar 2002  
TI Polymethine near-IR dyes, their production and their use  
IN Sasaki, Nobuaki; Wada, Sayuri; Fujita, Shigeo; Iwasaki, Yasuhisa  
PA Yamamoto Chemicals, Inc., Japan  
SO Eur. Pat. Appl., 47 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM C09B023-01  
ICS B41C001-10; C09B023-00  
CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic  
Sensitizers)  
Section cross-reference(s): 27, 74

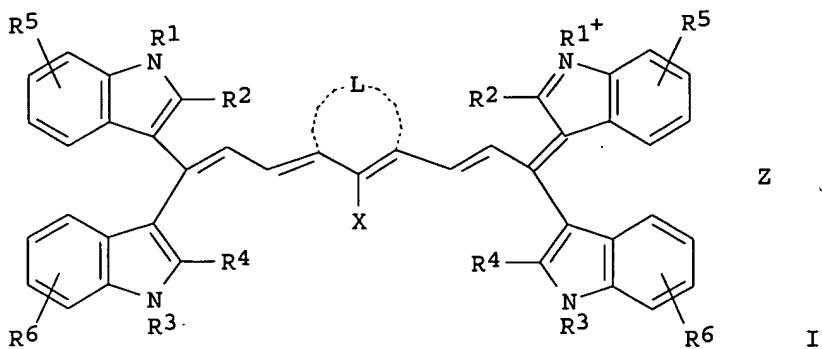
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1188797	A2	20020320	EP 2001-307516	20010904
	EP 1188797	A3	20040310		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002051939	A1	20020502	US 2001-951216	20010911
	JP 2002187879	A2	20020705	JP 2001-275938	20010912
PRAI	JP 2000-278102	A	20000913		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 1188797	ICM	C09B023-01
		ICS	B41C001-10; C09B023-00
	EP 1188797	ECLA	C09B023/00D
	US 2002051939	ECLA	C09B023/00D

OS MARPAT 136:264488  
GI



AB The invention provides a near-IR absorbing material showing a high sensitivity to a YAG laser having an emission wavelength of 900.apprx.1100 nm as well as a high photothermal conversion efficiency, an original plate for direct printing plate making which utilizes the near-IR absorbing material, and near-IR -absorbing polymethine dyes (R<sub>1</sub>, R<sub>3</sub> = optionally substituted alkyl, optionally substituted aryl, C<sub>5</sub>-7-cycloalkyl; R<sub>2</sub>, R<sub>4</sub> = optionally substituted alkyl, optionally substituted aryl; R<sub>5</sub>, R<sub>6</sub> = H, optionally substituted alkyl, optionally substituted alkoxy; X = H, halogen, substituted amino; Z = charge-neutralizing ion). I are obtained from indolylethylene compds. and dianils.

ST polymethine near IR dye prodn; direct printing plate manuf near IR dye; photothermal conversion layer near IR dye; near IR absorbing material

IT Cyanine dyes  
(near-IR-absorbing; production of near-IR-absorbing dyes for photothermal conversion layers and direct printing plate manufacture)

IT Printing plates  
Thermo optical effect  
(production of near-IR-absorbing dyes for photothermal conversion layers and direct printing plate manufacture)

IT 404868-71-9P 404868-72-0P 404868-74-2P 404868-75-3P 404868-77-5P  
404868-79-7P 404868-81-1P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polymethine dye; production of near-IR-absorbing dyes for photothermal conversion layers and direct printing plate manufacture)

IT 7778-74-7, Potassium perchlorate 14075-53-7, Potassium fluoroborate 63856-99-5 63857-00-1 122734-62-7 124521-57-9  
132426-80-3 155846-76-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting material; production of near-IR-absorbing dyes for photothermal conversion layers and direct printing plate manufacture)

L10 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2000:697411 CAPLUS  
DN 134:111026  
ED Entered STN: 04 Oct 2000  
TI Time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications

STN search for 10765,797

AU Lassiter, Suzanne J.; Stryjewski, Wieslaw; Legendre, Benjamin L., Jr.; Erdmann, Rainer; Wahl, Michael; Wurm, John; Peterson, Rex; Middendorf, Lyle; Soper, Steven A.  
CS Department of Chemistry, Louisiana State University, Baton Rouge, LA, 70803-1804, USA  
SO Analytical Chemistry (2000), 72(21), 5373-5382  
CODEN: ANCHAM; ISSN: 0003-2700  
PB American Chemical Society  
DT Journal  
LA English  
CC 3-1 (Biochemical Genetics)  
Section cross-reference(s): 10  
AB A compact time-resolved near-IR fluorescence imager was constructed to obtain lifetime and intensity images of DNA sequencing slab gels. The scanner consisted of a microscope body with f/1.2 relay optics onto which was mounted a pulsed diode laser (repetition rate 80 MHz, lasing wavelength 680 nm, average power 5 mW), filtering optics, and a large photoactive area (diameter 500 μm) single-photon avalanche diode that was actively quenched to provide a large dynamic operating range. The time-resolved data were processed using electronics configured in a conventional time-correlated single-photon-counting format with all of the counting hardware situated on a PC card resident on the computer bus. The microscope head produced a timing response of 450 ps (fwhm) in a scanning mode, allowing the measurement of subnanosecond lifetimes. The time-resolved microscope head was placed in an automated DNA sequencer and translated across a 21-cm-wide gel plate in .apprx.6 s (scan rate 3.5 cm/s) with an accumulation time per pixel of 10 ms. The sampling frequency was 0.17 Hz (duty cycle 0.0017), sufficient to prevent signal aliasing during the electrophoresis separation. Software (written in Visual Basic) allowed acquisition of both the intensity image and lifetime anal. of DNA bands migrating through the gel in real time. Using a dual-labeling (IRD700 and Cy5.5 labeling dyes)/two-lane sequencing strategy, we successfully read 670 bases of a control M13mp18 ssDNA template using lifetime identification. Comparison of the reconstructed sequence with the known sequence of the phage indicated the number of miscalls was only 2, producing an error rate of .apprx.0.3% (identification accuracy 99.7%). The lifetimes were calculated using maximum likelihood estimators and allowed online detns. with high precision, even when short integration times were used to construct the decay profiles. Comparison of the lifetime base calling to a single-dye /four-lane sequencing strategy indicated similar results in terms of miscalls, but reduced insertion and deletion errors using lifetime identification methods, improving the overall read accuracy.  
ST time resolved fluorescence imaging slab gel electrophoresis; lifetime base calling DNA sequencing application  
IT Apparatus  
    (automated DNA sequencer; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT Computer program  
    (for intensity image and lifetime anal. of DNA bands; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT Microscopes  
    (head, time-resolved near-IR laser-induced; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT Imaging  
    (lifetime and intensity; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT IR lasers

STN search for 10765,797

(near-IR; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)

IT DNA  
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(single-stranded, M13mp18, sequence of; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT Electrophoresis  
(slab; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT Coliphage M13  
(ssDNA; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT DNA sequence analysis  
Data processing  
Fluorescent substances  
Optical detectors  
(time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT Fluorometry  
(time-resolved; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)  
IT 172777-84-3, Cy5.5 251102-88-2, IRD700  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(labeling dye; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bachteler, G; J Lumin 1994, V62, P101 CAPLUS
- (2) Erdmann, R; Proc SPIE-Int Soc Opt Eng 1996, V2680, P176
- (3) Flanagan, J; Anal Chem 1998, V70, P2676 CAPLUS
- (4) Hall, P; J Phys Chem 1981, V45, P2941
- (5) He, H; Anal Chem 1998, V70, P3413 CAPLUS
- (6) Huang, X; Anal Chem 1992, V64, P167
- (7) Huang, X; Anal Chem 1992, V64, P2149 CAPLUS
- (8) Kambara, H; Nature 1993, V361, P565 MEDLINE
- (9) Legendre, B; Rev Sci Instrum 1996, V67, P3984 CAPLUS
- (10) Li, L; J Chromatogr A 1997, V695, P85 CAPLUS
- (11) Li, L; J Chromatogr A 1999, V841, P95 CAPLUS
- (12) Li, L; Rev Sci Instrum 1993, V64, P1524 CAPLUS
- (13) Lieberwirth, U; Anal Chem 1998, V70, P4771 CAPLUS
- (14) Middendorf, L; Electrophoresis 1992, V13, P487 CAPLUS
- (15) Neumann, M; J Chromatogr A 2000, V871, P299 CAPLUS
- (16) Nunnally, B; Anal Chem 1997, V9, P22392
- (17) Peierls, R; Proc R Soc 1935, VA149, P467
- (18) Sauer, M; Biomed Chromatogr 1997, V11, P81 CAPLUS
- (19) Soper, S; Anal Chem 1995, V67, P4358 CAPLUS
- (20) Soper, S; Appl Spectrosc 1994, V48, P400 CAPLUS
- (21) Soper, S; IEEE J Sel Top Quantum Electr 1996, V2, P1129 CAPLUS
- (22) Soper, S; J Opt Soc Am B 1992, V9, P1761 CAPLUS
- (23) Takahashi, S; Anal Chem 1994, V66, P1021 CAPLUS
- (24) Zhang, Y; Appl Spectrosc 1999, V53, P497 CAPLUS

L10 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:188738 CAPLUS

DN 132:302697

ED Entered STN: 24 Mar 2000

STN search for 10765,797

TI Nonaqueous capillary electrophoresis of fatty acids derivatized with a near-infrared fluorophore  
AU Gallaher, David L., Jr.; Johnson, Mitchell E.  
CS Department of Chemistry and Biochemistry, Duquesne University, Pittsburgh, PA, 15282-1530, USA  
SO Analytical Chemistry (2000), 72(9), 2080-2086  
CODEN: ANCHAM; ISSN: 0003-2700  
PB American Chemical Society  
DT Journal  
LA English  
CC 80-4 (Organic Analytical Chemistry)  
AB Saturated linear fatty acids, derivatized with a near-IR absorbing fluorescent dye, were separated in 100% methanol with 12.5 mM tetraethylammonium chloride added as a charge carrier. Separation at 380 V/cm was acceptable for acids that differed in length by a single carbon. The labeled linear fatty acids behaved as random coils in the nonaq. separation medium, as shown in a fit to a simple theor. expression. However, even in 100% methanol with a trimethylsilylated capillary, significant adsorption to the capillary wall occurred, which reduced resolution and slowed the separation  
Addition of water to the methanol medium caused significant differences in separation behavior of high mol. weight acids (>C16). Addition of a cetyltrimethylammonium bromide surfactant to the separation medium dynamically coated the capillary and greatly improved the separation. The surfactant also interacted with the acyl tail, apparently causing it to collapse. Resolution in an optimal separation medium (20 mM surfactant) ranged from 1.6 to 1.1, depending on chain length, and theor. plate heights were under 4  $\mu\text{m}$  ( $N > 105$ ). Resolution was more than adequate to sep. stearic (C18:0) from oleic (C18:1) acid, as well as other unsatd. C18 homologs.  
ST nonaq capillary electrophoresis fatty acid near IR fluorophore derivatization  
IT Fluorescent dyes  
(near IR absorbing; nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)  
IT Capillary electrophoresis  
Homologous series  
(nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)  
IT Fatty acids, analysis  
RL: ANT (Analyte); ANST (Analytical study)  
(nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)  
IT 56-34-8, Tetraethylammonium chloride 57-09-0, Cetyltrimethylammonium bromide  
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); ANST (Analytical study); USES (Uses)  
(carrier; nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)  
IT 538-75-0, N,N'-Dicyclohexylcarbodiimide  
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); ANST (Analytical study); USES (Uses)  
(for nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)  
IT 57-10-3, Hexadecanoic acid, analysis 57-11-4, Octadecanoic acid, analysis 60-33-3, Linoleic acid, analysis 64-19-7, Acetic acid, analysis 79-09-4, Propanoic acid, analysis 107-92-6, Butanoic acid, analysis 109-52-4, Pentanoic acid, analysis 111-14-8, Heptanoic acid 112-05-0, Nonanoic acid 112-37-8, Undecanoic acid 112-85-6, Docosanoic acid 124-07-2, Octanoic acid, analysis 142-62-1, Hexanoic acid, analysis 143-07-7, Dodecanoic acid, analysis 334-48-5, Decanoic acid

STN search for 10765,797

506-12-7, Heptadecanoic acid 506-26-3,  $\gamma$ -Linolenic acid  
506-30-9, Eicosanoic acid 638-53-9, Tridecanoic acid 27104-13-8  
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST  
(Analytical study); PROC (Process)  
(nonaq. capillary electrophoresis of fatty acids derivatized with near-  
IR fluorophore)

IT 264915-22-2  
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
(nonaq. capillary electrophoresis of fatty acids derivatized with near-  
IR fluorophore)

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Cantor, C; Biophysical Chemistry. Part III. The Behavior of Biological Macromolecules 1980, P1019
- (2) Chiesa, C; J Chromatogr 1993, V645, P337 CAPLUS
- (3) Collet, J; J Chromatogr A 1997, V792, P165 CAPLUS
- (4) Drange, E; J Chromatogr, A 1997, V771, P301 CAPLUS
- (5) Flanagan, J; Anal Chem 1995, V67, P341 CAPLUS
- (6) Fu, S; Anal Chem 1998, V70, P173 CAPLUS
- (7) Gallaher, D; Analyst 1999, V124, P1541 CAPLUS
- (8) Gutnikov, G; J Chromatogr, B 1995, V671, P71 CAPLUS
- (9) Gutnikov, G; J Microcolumn Sep 1994, V6, P565 CAPLUS
- (10) Haddadian, F; J Chromatogr Sci 1999, V37, P103 CAPLUS
- (11) Kenndler, E; High Performance Capillary Electrophoresis Theory, Techniques, and Applications 1998, P25 CAPLUS
- (12) Koval, M; J Chromatogr 1985, V325, P151 CAPLUS
- (13) Legendre, B; J Chromatogr, A 1997, V779, P185 CAPLUS
- (14) Mank, A; Trends Anal Chem 1992, V11, P210 CAPLUS
- (15) Miller, J; High Performance Capillary Electrophoresis 1998, P525 CAPLUS
- (16) Neubert, R; J Pharmazie 1997, V52, P212 CAPLUS
- (17) Roldan-Assad, R; J Chromatogr, A 1995, V708, P339 CAPLUS
- (18) Sahota, R; Anal Chem 1994, V66, P1141 CAPLUS
- (19) Salimi-Moosavi, H; Anal Chem 1996, V68, P293 CAPLUS
- (20) Schmitz, O; J Chromatogr, A 1997, V767, P249 CAPLUS
- (21) Schwer, C; Anal Chem 1991, V63, P1801 CAPLUS
- (22) Soper, S; J Am Chem Soc 1994, V116, P3744 CAPLUS
- (23) Sweeley, C; Lipids 1969, P254
- (24) Wan, H; Electrophoresis 1999, V20, P132 CAPLUS
- (25) Wang, T; Electrophoresis 1998, V19, P2187 CAPLUS
- (26) Wright, P; Anal Chem 1997, V69, P3251 CAPLUS

L10 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:178797 CAPLUS

DN 126:209140

ED Entered STN: 17 Mar 1997

TI High-Resolution Separation of DNA Restriction Fragments Using Capillary Electrophoresis with Near-IR, Diode-Based, Laser-Induced Fluorescence Detection

AU Owens, Clyde V.; Davidson, Yolanda Y.; Kar, Satyajit; Soper, Steven A.  
CS Department of Chemistry, Louisiana State University, Baton Rouge, LA,  
70803-1804, USA

SO Analytical Chemistry (1997), 69(6), 1256-1261  
CODEN: ANCHAM; ISSN: 0003-2700

PB American Chemical Society

DT Journal

LA English

CC 9-5 (Biochemical Methods)

Section cross-reference(s): 3, 73, 80

AB The near-IR dye thiazole green (TAG) was used as a monomeric nuclear staining dye for the low-level detection of

DNA restriction fragments separated via high-performance capillary electrophoresis with near-IR laser-induced fluorescence detection. TAG possessed an absorption maximum at 735 nm and an emission maximum at approx. 765 nm and, in the presence of dsDNAs, showed a fluorescence enhancement ratio of approx. 102, with a binding constant to dsDNAs determined to be  $6.1 + 106$  M<sup>-1</sup>. The high-resolution separation of the HaeIII restriction digest of  $\phi$ X174 was carried out using capillary electrophoresis on the native, ethidium bromide (EtBr)-stained and TAG-stained DNA fragments. The TAG-stained DNA fragments resulted in higher plate nos. compared to the native and EtBr-stained restriction fragments as well as enhanced resolution; however, the 271/281 fragments could not be resolved using these CE conditions. To investigate the detection sensitivity of the TAG-stained DNA in capillary electrophoresis, an all-solid-state diode-based, laser-induced fluorescence (LIF) detector was constructed, which consisted of a GaAlAs diode laser, with a principal lasing line at 750 nm and an avalanche photodiode. By using a running buffer composed of an entangled polymer (HPMC) and 1  $\mu$ M TAG with no prestaining of the dsDNA prior to the electrophoresis, the limit of detection was 20 fg (SNR = 3) of DNA per electrophoretic band. In addition, using the LIF system, the 271/281 bp fragments were nearly baseline resolved, with plate nos. exceeding  $1 + 106$  plates/m.

ST DNA restriction fragment detection electrophoresis **fluorometry**; capillary electrophoresis DNA restriction fragment; fluorescence detector DNA restriction fragment electrophoresis; thiazole green stain DNA restriction fragment

IT Capillary electrophoresis  
Coliphage  $\phi$ X174  
Laser **fluorometry**  
Staining, biological  
Stains, biological  
(DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

IT DNA  
RL: ANT (Analyte); ANST (Analytical study)  
(double-stranded; DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

IT 188010-45-9, Thiazole green  
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)  
(DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

IT 120-75-2, 2-Methylbenzothiazole 627-31-6, 1,3-Diodopropane  
51143-32-9, Malonaldehyde dianil hydrochloride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

IT 491-35-0P, Lepidine 2785-06-0P 58992-59-9P 187988-10-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Bachteler, G; J Lumin 1994, V62, P101 CAPLUS  
(2) Barron, A; J Chromatogr 1993, V652, P3 CAPLUS  
(3) Benson, S; Nucleic Acids Res 1993, V21, P5727 CAPLUS  
(4) Figeys, D; J Chromatogr 1994, V669, P205 CAPLUS  
(5) Flanagan, J; Anal Chem 1995, V67, P341 CAPLUS  
(6) Fuchigami, T; Anal Chim Acta 1993, V282, P209 CAPLUS

STN search for 10765,797

- (7) Fuchigami, T; Anal Chim Acta 1994, V291, P183 CAPLUS
- (8) Gaugain, B; J Biochem 1978, V17, P5078 CAPLUS
- (9) Glazer, A; Anal Biochem 1995, V231, P247
- (10) Glazer, A; Proc Natl Acad Sci U S A 1990, V87, P3851 CAPLUS
- (11) Green, M; Appl Spectrosc 1992, V46, P1724 CAPLUS
- (12) Grossman, P; J Chromatogr 1991, V559, P257 CAPLUS
- (13) Grossman, P; J Chromatogr 1994, V663, P219 CAPLUS
- (14) Heiger, D; J Chromatogr 1990, V516, P33 CAPLUS
- (15) Higashijima, T; Anal Chem 1992, V64, P711 CAPLUS
- (16) Hjerten, S; J Chromatogr 1985, V347, P191 CAPLUS
- (17) Kim, Y; Anal Chem 1994, V66, P1168 CAPLUS
- (18) Le Pecq, J; Anal Biochem 1966, V17, P100 MEDLINE
- (19) McCord, B; J Chromatogr 1993, V652, P75 CAPLUS
- (20) Pariat, Y; J Chromatogr 1993, V652, P57 CAPLUS
- (21) Rye, S; Nucleic Acids Res 1990, V19, P327
- (22) Rye, S; Nucleic Acids Res 1992, V20, P2803
- (23) Sauda, K; Anal Chem 1986, V58, P2649 CAPLUS
- (24) Sauda, K; Anal Chim Acta 1986, V187, P353 CAPLUS
- (25) Schwartz, H; Anal Chem 1992, V64, P1737 CAPLUS
- (26) Schwartz, H; J Chromatogr 1991, V559, P267 CAPLUS
- (27) Soper, S; J Am Chem Soc 1994, V116, P3744 CAPLUS
- (28) Srinivasan, K; J Chromatogr 1993, V652, P83 CAPLUS
- (29) Strega, M; Anal Chem 1991, V63, P1233 CAPLUS
- (30) West, W; J Phys Chem 1965, V69, P1894 CAPLUS
- (31) Williams, D; Anal Chem 1995, V67, P3427 CAPLUS
- (32) Williams, R; Anal Chem 1993, V65, P601 CAPLUS
- (33) Zhu, H; Anal Chem 1994, V66, P1941 CAPLUS

L10 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1992:143104 CAPLUS  
DN 116:143104  
ED Entered STN: 03 Apr 1992  
TI Determination of amino acids by capillary zone electrophoresis based on semiconductor laser fluorescence detection  
AU Higashijima, Toshiyuki; Fuchigami, Tetsuhiro; Imasaka, Totaro; Ishibashi, Nobuhiko  
CS Fac. Eng., Kyushu Univ., Fukuoka, 812, Japan  
SO Analytical Chemistry (1992), 64(7), 711-14  
CODEN: ANCHAM; ISSN: 0003-2700  
DT Journal  
LA English  
CC 80-6 (Organic Analytical Chemistry)  
AB Chlorophyll is fluorescent in the deep-red region and is determined by semiconductor laser fluorometry after its separation with capillary zone electrophoresis. The separation efficiency is several hundred thousand in the theor. plate. Methylene blue is used as a chromophore in indirect fluorometry. The detection limit achieved is 1-pmol levels. A new labeling reagent is synthesized, which consists of a thiazine chromophore for fluorescence detection and a succinimidyl ester for combination with an amino acid. The labeled amino acids are clearly resolved by capillary zone electrophoresis, the detection limit being 10-pmol levels. Amino acids are further labeled with a visible dye such as fluorescein isothiocyanate (FITC) or 7-(diethylamino)coumarin-3-carboxylic acid succinimidyl ester (DCCS), and are detected with visible semiconductor laser fluorometry using second harmonic emission (415 nm) of the near-IR semiconductor laser. The detection limit achieved is .apprx.100-amol levels.  
ST amino acid detn electrophoresis laser fluorometry; semiconductor laser fluorometry amino acid detn; capillary zone electrophoresis amino acid detn; thiazine chromophore reagent amino acid

STN search for 10765,797

detn; succinimidyl ester reagent amino acid detn; chlorophyll detn  
electrophoresis laser fluorometry

IT Amino acids, analysis  
RL: ANT (Analyte); ANST (Analytical study)  
(determination of, by capillary zone electrophoresis/fluorometry  
using labeling reagent)

IT Fluorometry  
(laser, capillary zone electrophoresis combined with, determination of amino  
acids by)

IT Electrophoresis and Ionophoresis  
(zone, capillary, laser fluorometry combined with, determination of  
amino acids by)

IT 67806-06-8  
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(addition reaction of, with Azur B-mercaptopropanoic acid condensation  
product)

IT 61-73-4, Methylene blue  
RL: ANST (Analytical study)  
(as indirect fluorophore in determination of amino acids by capillary  
zone electrophoresis/fluorometry)

IT 139346-57-9  
RL: ANST (Analytical study)  
(as labeling reagent in determination of amino acids by capillary zone  
electrophoresis/fluorometry)

IT 68-11-1, Mercaptoacetic acid, reactions  
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(condensation of, with Azur B)

IT 531-55-5, Azure B  
RL: ANST (Analytical study)  
(condensation of, with mercaptoacetic acid)

IT 479-61-8  
RL: ANT (Analyte); ANST (Analytical study)  
(determination of, by capillary zone electrophoresis/fluorometry)

IT 56-40-6, Glycine, analysis 56-45-1, Serine, analysis 74-79-3,  
Arginine, analysis 147-85-3, Proline, analysis  
RL: ANT (Analyte); ANST (Analytical study)  
(determination of, by capillary zone electrophoresis/fluorometry  
using labeling reagent)

IT 139312-25-7P  
RL: SPN (Synthetic preparation); ANST (Analytical study); PREP  
(Preparation)  
(preparation and use of, as labeling reagent in determination of amino  
acids by  
capillary zone electrophoresis/fluorometry)

L10 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1991:669616 CAPLUS  
DN 115:269616  
ED Entered STN: 14 Dec 1991  
TI Semiconductor lasers in analytical chemistry  
AU Patonay, Gabor; Antoine, Miquel D.; Boyer, Anne E.  
CS Dep. Chem., Georgia State Univ., Atlanta, GA, 30303, USA  
SO Proceedings of SPIE-The International Society for Optical Engineering  
(1991), 1435(Opt. Methods Ultrasensitive Detect. Anal.: Tech. Appl.),  
52-63  
CODEN: PSISDG; ISSN: 0277-786X  
DT Journal; General Review  
LA English  
CC 80-6 (Organic Analytical Chemistry)  
Section cross-reference(s): 25, 28, 41, 79

AB The use of near-IR laser diode spectroscopy in anal. chemical is reviewed with 26 refs., but new results are also presented. The preparation of 1-(1-pyrenyl)-2-(3-ethylbenzothiazolium)ethylene bromide is reported and the uses of it and 2-[4'-chloro-7'-(3''-ethyl-2''-benzothiazolinylidene)-3',5'-(1''',3'''-propanediyl)-1',3',5'-heptatriene-1'-yl]-3-ethylbenzothiazolium bromide (I) are described. Laser diode intracavity absorption spectrometry was evaluated by using molybdenum blue methods for phosphorus and tannic acid in aqueous solution; the anal. useful signal was obtained by measuring the built-in integral monitoring photodiode signal of the laser diode. A calibration curve for the near-IR dye of HDITC is also shown. A bis-carboxylic acid derivative of I was used for determining pH using near-IR spectroscopy. I was used as a microhydrophobicity probe in micellar systems. Near-IR calibration calibration curves are shown for surface bound indocyanine green on polystyrene beads and in microliter plate wells.

ST review near IR laser diode spectroscopy; cyanine dye laser diode spectrochem analysis; intracavity laser diode absorption spectrochem analysis; phosphorus trace detn laser diode spectroscopy; tannic acid detn laser diode spectroscopy; pH detn laser diode spectroscopy; hydrophobicity microprobe micellar system cyanine dye; adsorbed dye detn near IR fluorescence

IT Micelles  
(determination of hydrophobicity in systems of, using near-IR laser diode spectroscopic microprobe)

IT Hydrophobicity  
(determination of micro-, in micellar systems by near-IR laser diode spectroscopy using cyanine dyes)

IT Tannins  
RL: ANST (Analytical study)  
(determination of trace, in aqueous solns. by laser diode intracavity absorption spectrometry using cyanine dye)

IT Adsorbed substances  
(determination of, by near-IR laser-induced fluorescence spectrometry)

IT Spectrochemical analysis  
(fluorometric, laser-induced, near-IR, for surface-bound mols.)

IT Spectrochemical analysis  
(near-IR, using semiconductor lasers and cyanine dyes)

IT Spectrochemical analysis  
(near-IR, intracavity absorption, using semiconductor lasers and cyanine dyes)

IT Lasers  
(semiconductor, in anal. chemical)

IT 74-96-4, Ethyl bromide  
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(alkylation by, of methylbenzothiazole)

IT 120-75-2, 2-Methylbenzothiazole  
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(alkylation of, by Et bromide)

IT 3599-32-4, Indocyanine green  
RL: ANST (Analytical study)  
(determination of surface-bound, on microliter plate wells and polystyrene beads by near-IR laser diode fluorescence spectrometry)

IT 7723-14-0, Phosphorus, analysis  
RL: ANST (Analytical study)  
(determination of trace, in aqueous solns. by laser diode intracavity absorption

STN search for 10765,797

          spectrometry using cyanine dye)  
IT 23178-67-8, HDITC  
      RL: ANT (Analyte); ANST (Analytical study)  
          (determination of, by near-IR laser diode intracavity absorption  
          spectrometry)  
IT 137500-53-9  
      RL: ANST (Analytical study)  
          (for determination of pH by near-IR laser diode absorption  
          spectrometry using cyanine dye)  
IT 57-09-0, CTAB 123-03-5, CPC 151-21-3, SDS, analysis 9005-65-6,  
Tween-80  
      RL: ANST (Analytical study)  
          (hydrophobic environment of, in aqueous systems, near-IR laser  
          diode spectrometry using pyrenyl dye in study of)  
IT 7732-18-5  
      RL: ANST (Analytical study)  
          (hydrophobicity, determination of micro-, in micellar systems by near-  
          IR laser diode spectroscopy using cyanine dyes)  
IT 70446-41-2  
      RL: ANST (Analytical study)  
          (near-IR and visible spectra and use of, in near-IR  
          laser diode spectrochem. anal. and hydrophobicity studies)  
IT 52299-76-0P, 3-Ethyl-2-methylbenzothiazolium bromide  
      RL: RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study);  
PREP (Preparation); RACT (Reactant or reagent)  
          (preparation and reaction of, with pyrene carboxaldehyde)  
IT 135251-75-1P  
      RL: ANST (Analytical study); PREP (Preparation)  
          (preparation and visible spectrum and use of, in near-IR laser  
          diode spectrochem. anal. and hydrophobicity studies)  
IT 3029-19-4, 1-Pyrenecarboxaldehyde  
      RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
          (reaction of, with methylbenzothiazolium bromide derivative)

=> s heat and plate  
      1208744 HEAT  
      309879 PLATE  
L11      38550 HEAT AND PLATE

=> d his  
(FILE 'HOME' ENTERED AT 15:49:50 ON 15 MAR 2005)

FILE 'CAPLUS' ENTERED AT 15:50:01 ON 15 MAR 2005  
L1      637015 S INFRARED OR IR OR INFRA RED  
L2      7711 S L1 AND DYE  
L3      309 S L2 AND FLUORO?  
L4      10 S L3 AND PERFLUORO?  
L5      0 S L4 NOT L3  
L6      44388 S LITHOGRAPH? OR PLANOGRAPH?  
L7      6 S L6 AND L3  
L8      0 S L4 AND L6  
L9      11 S L3 AND PLATE  
L10     6 S L9 NOT L6  
L11     38550 S HEAT AND PLATE

=> s l11 and dye  
      242856 DYE  
L12     528 L11 AND DYE

STN search for 10765,797

=> s l12 and fluoro?  
379314 FLUORO?  
L13 12 L12 AND FLUORO?

=> s l12 and perfluoro?  
47229 PERFLUORO?  
L14 1 L12 AND PERFLUORO?

=> s l13 or l14  
L15 13 L13 OR L14

=> d all 1-13

L15 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:993627 CAPLUS  
DN 141:425091  
ED Entered STN: 19 Nov 2004  
TI Dye-containing curable compositions with good heat and  
light resistance for color filters and their production method  
IN Suzuki, Nobuo  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 36 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G02B005-20  
ICS C09D007-12; C09D201-00; G03F007-004  
CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 41, 74

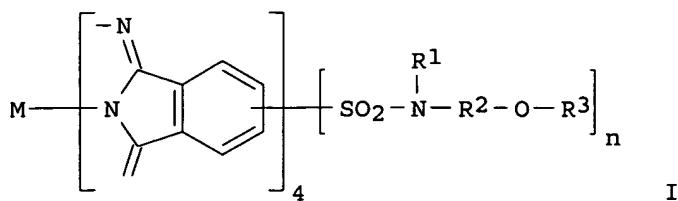
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004325660	A2	20041118	JP 2003-118692	20030423
PRAI JP 2003-118692		20030423		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004325660	ICM	G02B005-20
	ICS	C09D007-12; C09D201-00; G03F007-004
JP 2004325660	FTERM	2H025/AA10; 2H025/AA11; 2H025/AB13; 2H025/AC01; 2H025/AD01; 2H025/AD03; 2H025/BC14; 2H025/BC32; 2H025/BC42; 2H025/BE01; 2H025/CA01; 2H025/CA07; 2H025/CA20; 2H025/CA28; 2H025/CA39; 2H025/CB13; 2H025/CB14; 2H025/CB43; 2H025/CB52; 2H025/CC03; 2H025/CC13; 2H025/FA03; 2H025/FA17; 2H048/BA02; 2H048/BA45; 2H048/BA47; 2H048/BB02; 2H048/BB42; 2H048/BB46; 4J038/CE021; 4J038/CG031; 4J038/CG071; 4J038/DL031; 4J038/KA03; 4J038/KA08; 4J038/KA12; 4J038/MA09

OS MARPAT 141:425091  
GI



AB Title compns. comprise (A) alkali-soluble resins, (B) phthalocyanine type dyes having total carbons of the substituted parts 4-40 I, (C) photosensitive compds., and (D) solvents, wherein R1 = H or C1-4 alkyl; R2 = C1-6 alkylene; R3 = (etheric oxygen-containing) C1-8 alkyl (total carbons of R1, R2, R3, and R4 = 2-12); n = 1-4 number; and M = divalent metal, trivalent metal having monosubstituent, tetravalent metal having disubstituent, or oxymetal. Thus, a resist solution comprising propylene glycol monomethyl ether acetate 28.9, Et lactate 28.9, 41% benzyl methacrylate-methacrylic acid-2-hydroxyethyl methacrylate copolymer solution 30.5, dipentaerythritol hexaacrylate 10.2, p-methoxyphenol 0.006, fluorosurfactant 0.80, and TAZ 107 photoinitiator 0.58 parts was applied on a glass plate and dried at 220° for 1 h, a phthalocyanine type dye-containing resist was applied thereon, prebaked at 110° for 120 s, irradiated through a photomask, developed, washed, and dried to give a test piece with good solubility (dye resist), storage stability (dye resist), and heat and light resistance.

ST dye contg curable compn heat light resistance color filter; alkali soluble copolymer dipentaerythritol hexaacrylate phthalocyanine dye resist

IT Dyes  
 Optical filters  
 (dye-containing curable compns. with good heat and light resistance for color filters)

IT Light-resistant materials  
 (heat-resistant; dye-containing curable compns. with good heat and light resistance for color filters)

IT Heat-resistant materials  
 (light-resistant; dye-containing curable compns. with good heat and light resistance for color filters)

IT Resists  
 (neg.-working; dye-containing curable compns. with good heat and light resistance for color filters)

IT Resists  
 (pos.-working; dye-containing curable compns. with good heat and light resistance for color filters)

IT 3770-97-6DP, reaction products with Tisp PA 110726-28-8DP, Trisp PA, reaction products with Naphthoquinonediazide-5-sulfonyl chloride  
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
 (alkali soluble polymer; dye-containing curable compns. with good heat and light resistance for color filters)

IT 141655-30-3P, Benzyl methacrylate-methacrylic acid-2-hydroxyethyl methacrylate copolymer  
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)  
 (alkali-soluble; dye-containing curable compns. with good

STN search for 10765,797

heat and light resistance for color filters)

IT 67653-78-5P, Dipentaerythritol hexaacrylate homopolymer 795308-27-9P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(dye-containing curable compns. with good heat and  
light resistance for color filters)

IT 147-14-8D, derivs. 13930-88-6D, derivs. 795314-12-4 795314-13-5  
795314-14-6 795314-15-7 795314-16-8 795314-17-9 795314-18-0  
795314-19-1 795314-20-4 795314-21-5 795314-22-6 795314-23-7  
795314-24-8 795314-25-9 795314-26-0 795314-27-1 795314-28-2  
795314-29-3 795314-30-6 795314-31-7 795314-32-8 795314-33-9  
795314-34-0 795314-36-2 795314-37-3 795314-38-4 795314-39-5  
795314-40-8 795314-41-9 795314-42-0 795314-43-1 795314-44-2  
795314-45-3 795314-46-4 795314-47-5 795314-48-6 795314-49-7  
795314-50-0 795314-51-1 795314-52-2 795314-53-3 795314-54-4  
795314-55-5 795314-56-6 795314-57-7 795314-58-8 795314-59-9  
795314-60-2 795314-61-3 795314-62-4 795314-63-5 795314-64-6  
795314-72-6 795314-73-7  
RL: MOA (Modifier or additive use); USES (Uses)  
(dye-containing curable compns. with good heat and  
light resistance for color filters)

IT 3770-97-6 110726-28-8, Trisp PA  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactant in alkali soluble polymer preparation; dye-containing curable  
compns. with good heat and light resistance for color  
filters)

L15 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:779904 CAPLUS  
DN 141:304301  
ED Entered STN: 24 Sep 2004  
TI Heat-sensitive lithographic printing plate precursor  
containing IR absorbing dye with perfluoroalkyl  
substituent  
IN Deroover, Geert; Van Damme, Marc  
PA Agfa-Gevaert, Belg.  
SO U.S. Pat. Appl. Publ., 17 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
IC ICM B41N001-00  
NCL 101453000  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI US 2004182268	A1	20040923	US 2004-765797	20040127
JP 2004341484	A2	20041202	JP 2004-18894	20040127
PRAI EP 2003-100154	A	20030127		
US 2003-444470P	P	20030203		

This APP!

CLASS  
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES  
-----  
US 2004182268 ICM B41N001-00  
NCL 101453000  
JP 2004341484 FTERM 2H025/AA02; 2H025/AA04; 2H025/AB03; 2H025/AC08;  
2H025/AD03; 2H025/CB51; 2H025/CC11; 2H025/DA03;  
2H025/FA17; 2H096/AA06; 2H096/BA09; 2H096/EA04;  
2H096/GA08

STN search for 10765,797

OS MARPAT 141:304301

AB A heat-sensitive pos. working lithog. printing plate precursor is described that has high differentiation between exposed and non-exposed areas and which has high sensitivity. Thus, the plate precursor comprises a hydrophilic support and a coating consisting of a first layer containing an oleophilic resin soluble in an aqueous alkaline developer and a second layer containing a water repellent compound. The coating comprises an IR absorbing dye sensitizer containing a perfluoroalkyl group that provides the printing plate precursor with high sensitivity. The IR absorbing dye can be present in the first layer, or in the second layer or in the optional other layer.

ST heat sensitive lithog printing plate precursor IR dye; perfluoroalkyl substituent IR dye lithog printing plate precursor

IT Dyes  
(IR-absorbing; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Surfactants  
(heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Lithographic plates  
(heat-sensitive; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Polysiloxanes, uses  
RL: DEV (Device component use); USES (Uses)  
(polyether-, Tego wet 265, oleophilic resin layer; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Polysiloxanes, uses  
RL: DEV (Device component use); USES (Uses)  
(polyoxyalkylene-, graft, Tego glide 410, oleophilic resin layer; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Polyoxalkylenes, uses  
RL: DEV (Device component use); USES (Uses)  
(polysiloxane-, graft, Tego glide 410, oleophilic resin layer; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Polyethers, uses  
RL: DEV (Device component use); USES (Uses)  
(siloxane-, Tego wet 265, oleophilic resin layer; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 134127-48-3  
RL: NUU (Other use, unclassified); USES (Uses)  
(comparison dye; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 762276-41-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(comparison dye; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 762276-37-9P 762276-38-0P 762276-39-1P 762276-40-4P

STN search for 10765,797

RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(dye; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 573-11-5, 2,3,4-Trimethoxybenzoic acid 1320-67-8, Methoxypropanol  
56730-76-8, Fluorad 100346-90-5, Alnovol SPN452  
RL: DEV (Device component use); USES (Uses)  
(heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 142-04-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(intermediate in synthesis of comparison dye; synthesis of IR absorbing dye sensitizer)

IT 98826-99-4P 762276-49-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate in synthesis of comparison dye; synthesis of IR absorbing dye sensitizer)

IT 15901-42-5 41532-84-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(intermediate; synthesis of IR absorbing dye sensitizer)

IT 6761-94-0P 29457-72-5P 61010-04-6P 121276-93-5P 200574-76-1P  
263762-34-1P 762276-42-6P 762276-43-7P 762276-44-8P 762276-45-9P  
762276-46-0P 762276-47-1P 762276-48-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; synthesis of IR absorbing dye sensitizer)

IT 7429-90-5D, Aluminum, oxidized  
RL: DEV (Device component use); USES (Uses)  
(support; Heat-sensitive lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 530-62-1, 1,1'-Carbonyldimidazole 34598-33-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis of IR absorbing dye sensitizer)

IT 12707-52-7, FC431  
RL: DEV (Device component use); USES (Uses)  
(water repellent; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

L15 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:696361 CAPLUS  
DN 141:208581  
ED Entered STN: 26 Aug 2004  
TI Heteropolycyclic compounds for coloring matters, pigments, dyes, color-changing material compositions, and color-changing films  
IN Yoshida, Katsuhira; Ooyama, Yousuke; Hachiya, Satoshi  
PA Idemitsu Kosan Co., Ltd., Japan; Techno Network Shikoku Co., Ltd.  
SO PCT Int. Appl., 78 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
IC ICM C07D263-60  
ICS C07D307-77; C07D498-04; C07D498-06; C07D311-78; C07D491-06;  
C09B057-00; C09B057-12; C09K011-06  
CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s) : 27, 28, 38, 42, 74

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004072053	A1	20040826	WO 2004-JP1472	20040212
	W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI				
	RW: BW, GH, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2004263178	A2	20040924	JP 2004-34963	20040212
	JP 2004263179	A2	20040924	JP 2004-34964	20040212
PRAI	JP 2003-36738	A	20030214		
	JP 2003-36790	A	20030214		

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004072053	ICM	C07D263-60	
	ICS	C07D307-77; C07D498-04; C07D498-06; C07D311-78; C07D491-06; C09B057-00; C09B057-12; C09K011-06	
WO 2004072053	ECLA	C07D263/60; C07D307/77B; C07D311/78; C07D498/04+307A+263A; C07D498/06+311A+263A; C09B057/00	
JP 2004263178	FTERM	4C037/TA10; 4C056/AA01; 4C056/AB01; 4C056/AC02; 4C056/AD07; 4C056/AE02; 4C056/CA03; 4C056/CA05; 4C056/CA06; 4C072/AA01; 4C072/AA07; 4C072/BB02; 4C072/BB08; 4C072/CC01; 4C072/CC12; 4C072/EE03; 4C072/FF16; 4C072/GG08; 4C072/HH02; 4C072/UU04; 4C072/UU05; 4H056/DD15; 4H056/DD23; 4H056/EA13; 4H056/FA01	
JP 2004263179	FTERM	3K007/AB04; 3K007/AB11; 3K007/BB06; 3K007/DB03	

OS MARPAT 141:208581

AB The present invention relates to (i) novel heteropolycyclic compds. having specific structures, (ii) color-changing material compns. comprising a fluorescent coloring matter consisting of the heteropolycyclic compound and a binder, (iii) color-changing films made from the compns., (iv) coloring matters consisting of the compds., and (v) pigments or dyes containing the compds. The invention provides (i) color-changing material compns. which are not deteriorated in color-changing performance even after long-time service and are freed from the precipitation of coloring matters in storage which

results in failure, (ii) color-changing films made by using them, and (iii) novel heteropolycyclic compds., coloring matters, pigments or dyes, which can bring about the films. Thus, 2.00 g 4-[p-(Diethylamino)phenyl]-1,2-naphthoquinone and 0.73 g p-cyanobenzaldehyde were reacted at 80° for 10 min to give 0.59 g a heteropolycyclic compound, 0.072 g of which was mixed with a benzyl methacrylate-methacrylic acid copolymer 1.9, Aronix M 400 1.5, Araldite ECN 1299 0.20, 2-acetoxy-1-ethoxypropane 2.5, cyclohexanone 3.0, and Irgacure 907 0.035 g, applied on a glass plate, dried at 120° for 2 min, irradiated with an UV-ray, and heat-treated at 200° for 60 min to give a coating with good color retention when irradiated with a blue electroluminescent device having wavelength 440 nm.

ST heteropolycyclic compd pigment dye color change material compn

film; diethylaminophenylnaphthoquinone cyanobenzaldehyde reactant heterocyclic compd prep; Aronix Araldite heteropolycyclic compd acrylic binder compn coating

IT Acrylic polymers, uses  
Polycarbonates, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(binders; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Phenolic resins, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(epoxy, novolak, blend with acrylic polymers; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Pigments, nonbiological  
(hetero-polycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Polycyclic compounds  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(hetero; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Binders  
Coating materials  
Coloring materials  
Dyes  
Electroluminescent devices  
Fluorescent dyes  
Fluorescent substances  
Photolithography  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Epoxy resins, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Epoxy resins, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(phenolic, novolak, blend with acrylic polymers; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Plastics, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(thermoplastics, binders; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Plastics, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(thermosetting, binders; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

STN search for 10765,797

(binder; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 37348-54-2, Araldite ECN 1299  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(blend with acrylic polymer; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 67653-78-5P, Aronix M 400 homopolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(blend with epoxy resin; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 81-88-9, Rhodamine B 989-38-8, Rhodamine 6G  
RL: MOA (Modifier or additive use); USES (Uses)  
(dye; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 105-07-7, p-Cyanobenzaldehyde 521-24-4, Sodium 1,2-naphthoquinone-4-sulfonate 43141-69-1, m-(Dibutylamino)phenol  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(hetero-polycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-67-9P 744216-74-8P 744216-76-0P 744216-77-1P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-65-7P 744216-66-8P 744216-70-4P 744216-71-5P 744216-72-6P  
744216-73-7P 744216-75-9P  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-49-7P 744216-53-3P 744216-60-2P 744216-63-5P  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 27775-58-2P, Aronix M 305 homopolymer 36446-02-3P, Aronix M 309 homopolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-50-0P 744216-51-1P 744216-52-2P 744216-54-4P 744216-56-6P  
744216-57-7P 744216-58-8P 744216-59-9P 744216-61-3P  
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-69-1P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-78-2  
RL: PRP (Properties)  
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 459-57-4, 4-Fluorobenzaldehyde 642-31-9, 9-Anthraldehyde

STN search for 10765,797

3029-19-4, 1-Pyrenecarbaldehyde 10031-82-0, p-Ethoxybenzaldehyde  
34036-07-2, 3,4-Difluorobenzaldehyde 123135-53-5, 4-[p-  
(Diethylamino)phenyl]-1,2-naphthoquinone 344590-80-3 744216-55-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(heteropolycyclic compds. for coloring matters, pigments, dyes,  
color-changing material compns., and color-changing films)  
IT 744216-48-6P  
RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); PREP  
(Preparation); RACT (Reactant or reagent)  
(intermediate; hetero-polycyclic compds. for coloring matters,  
pigments, dyes, color-changing material compns., and color-changing  
films)  
IT 744216-64-6P 744216-68-0P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(intermediate; heteropolycyclic compds. for coloring matters, pigments,  
dyes, color-changing material compns., and color-changing films)

L15 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:333842 CAPLUS

DN 140:335208

ED Entered STN: 23 Apr 2004

TI Automated method and device for high throughput screening of nematodes

IN Gill, Matthew S.; Olsen, Anders; Lithgow, Gordon J.

PA Buck Institute, USA

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12N

CC 9-1 (Biochemical Methods)

Section cross-reference(s): 12

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004033654	A2	20040422	WO 2003-US32066	20031009
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2002-417465P P 20021009

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004033654	ICM	C12N

AB This invention provides a high throughput survival assay, using uptake of a marker dye (e.g. a fluorescent dye) as a marker of death of a nematode. The assay permits high throughput screening of thousands of compds. possible. By the application of automated worm handling technol. we are able to accurately dispense nematodes into 384 well microtiter plates, at rates many thousand of times faster than previously possible. In addition, we have automated the anal. of survival by the use of a fluorometric plate reader that quantitates the degree of fluorescence within each well. A COPAS BIOSORT

STN search for 10765,797

automated worm handling device was used to dispense individual *Caenorhabditis elegans* nematodes into microtiter plate wells containing Sytox fluorescent dye for detection of nematode viability. A fluorometric plate reader was used to quantify fluorescence.

ST automated app high throughput screening nematode; fluorescent dye automated nematode handling app screening; fluorometric plate reader automated device nematode screening

IT *Escherichia coli*  
(OP50; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Materials handling  
(apparatus; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Analysis  
Process automation  
(automated anal.; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Aging, animal  
Bioassay  
*Caenorhabditis*  
*Caenorhabditis elegans*  
Dyes  
Fluorescence  
Fluorescent dyes  
Fluorescent substances  
High throughput screening  
Microtiter plates  
Mutation  
Nematocides  
Nematoda  
Oxidative stress, biological  
Statistical analysis  
Test kits  
(automated method and device for high throughput screening of the activity of agents on nematodes)

IT Dispensing apparatus  
(automated, COPAS BIOSORT device; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Analytical apparatus  
Apparatus  
(automated; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Eukaryota  
(detectable label excluded from live cells of; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Cell membrane  
(detectable label penetrating compromised; automated method and device for high throughput screening of the activity of agents on nematodes)

IT High throughput screening  
(drug; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Staining, biological  
(fluorescent; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Culture media  
(for nematodes; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Stress, animal

STN search for 10765,797

Temperature effects, biological  
(heat; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Drug screening  
(high throughput; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Gene, animal  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(nematodes with transgene or knock out; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Transgene  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)  
(nematodes with; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Death  
(of nematode, marker dye detecting; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Fluorometry  
(plate reader; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Nematoda  
(thermotolerant; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Biological transport  
(uptake, of detectable label as marker of nematode death; automated method and device for high throughput screening of the activity of agents on nematodes)

IT 25535-16-4, Propidium iodide 194100-76-0, Sytox green 324767-53-5, Sytox orange 396077-00-2, Sytox blue  
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(as detectable label for determining viability of nematodes; automated method and device for high throughput screening of the activity of agents on nematodes)

IT 4685-14-7, Paraquat  
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)  
(automated method and device for high throughput screening of the activity of agents on nematodes)

IT 81065-76-1, Euk-134  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(automated method and device for high throughput screening of the activity of agents on nematodes)

IT 154447-36-6, LY-294002  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(thermotolerance induction in nematodes after treatment with; automated method and device for high throughput screening of the activity of agents on nematodes)

L15 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:689835 CAPLUS  
DN 140:317563  
ED Entered STN: 04 Sep 2003  
TI An automated high-throughput assay for survival of the nematode *Caenorhabditis elegans*  
AU Gill, Matthew S.; Olsen, Anders; Sampayo, James N.; Lithgow, Gordon J.  
CS Buck Institute, Novato, CA, USA

STN search for 10765,797

SO Free Radical Biology & Medicine (2003), 35(6), 558-565  
CODEN: FRBMEH; ISSN: 0891-5849  
PB Elsevier Science Inc.  
DT Journal  
LA English  
CC 9-16 (Biochemical Methods)  
Section cross-reference(s): 12  
AB Many genetic or environmental manipulations that extend life span in the nematode *Caenorhabditis elegans* (*C. elegans*) also enhance survival following acute stresses such as oxidative damage and thermal stress. This coupling of stress response and aging mechanisms has proved a useful tool in identifying new genes that affect the aging process without the need for performing lengthy life span analyses. Therefore, it is likely that this approach may also be applied to the identification of pharmacol. agents that extend life span through enhanced resistance to oxygen radicals or other stressors. To facilitate high-throughput drug screens in the nematode, we have developed a microtiter plate survival assay that uses uptake of the fluorescent dye SYTOX green as a marker of nematode death. An increase in throughput compared with the conventional survival assay was achieved by combining automated worm-handling technol. with automated real-time fluorescence detection. We have validated this assay by examining survival during acute heat stress and protection against oxidative stress with the superoxide dismutase/catalase mimetic Euk-134. We propose that this novel method of survival anal. will accelerate the discovery of new pharmacol. interventions in aging and oxidative stress.  
ST hightthroughput survival assay nematode *Caenorhabditis*  
IT *Caenorhabditis elegans*  
Eubacteria  
    **Fluorometry**  
    Microtiter plates  
    Nematoda  
    Oxidative stress, biological  
        (automated high-throughput assay for survival of nematode  
            *Caenorhabditis elegans*)  
IT Analysis  
    (automated high-throughput; automated high-throughput assay for  
    survival of nematode *Caenorhabditis elegans*)  
IT Stress, animal  
    (heat; automated high-throughput assay for survival of  
    nematode *Caenorhabditis elegans*)  
IT 194100-76-0, SYTOX green  
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
    (automated high-throughput assay for survival of nematode  
    *Caenorhabditis elegans*)  
IT 9001-05-2, Catalase 9054-89-1, Superoxide dismutase 81065-76-1,  
Euk-134  
RL: BSU (Biological study, unclassified); NUU (Other use, unclassified);  
BIOL (Biological study); USES (Uses)  
    (automated high-throughput assay for survival of nematode  
    *Caenorhabditis elegans*)  
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Barsyte, D; FASEB J 2001, V15, P627 CAPLUS  
(2) Fabian, T; Mech Ageing Dev 1995, V83, P155 CAPLUS  
(3) Harrington, L; Mech Ageing Dev 1988, V43, P71 CAPLUS  
(4) Holzenberger, M; Nature 2003, V421, P182 CAPLUS  
(5) Johnson, T; J Inherit Metab Dis 2002, V25, P197 CAPLUS  
(6) Kang, H; Proc Natl Acad Sci USA 2002, V99, P838 CAPLUS  
(7) Link, C; Cell Stress Chaperones 1999, V4, P235 CAPLUS

STN search for 10765,797

- (8) Lithgow, G; Bioessays 1996, V18, P809 MEDLINE
- (9) Lithgow, G; Bioessays 2000, V22, P410 CAPLUS
- (10) Lithgow, G; J Gerontol 1994, V49, PB270 MEDLINE
- (11) Lithgow, G; Mech Ageing Dev 2002, V123, P765
- (12) Lithgow, G; Proc Natl Acad Sci USA 1995, V92, P7540 CAPLUS
- (13) Melov, S; Science 2000, V289, P1567 CAPLUS
- (14) Munoz, M; Genetics 2003, V163, P171 CAPLUS
- (15) Roth, B; Appl Environ Microbiol 1997, V63, P2421 CAPLUS
- (16) Sampayo, J; Ann NY Acad Sci 2000, V908, P324 MEDLINE
- (17) Sulston, J; The nematode Caenorhabditis elegans 1988, P587
- (18) Tatar, M; Nature 1997, V390, P30 CAPLUS
- (19) Tower, J; Bioessays 1996, V18, P799 MEDLINE
- (20) Vanfleteren, J; Biochem J 1993, V292, P605 CAPLUS
- (21) Walker, G; Aging Cell 2003, V2, P131 CAPLUS
- (22) Yang, Y; Mech Ageing Dev 2000, V113, P101 MEDLINE
- (23) Yokoyama, K; FEBS Lett 2002, V516, P53 CAPLUS

L15 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:646664 CAPLUS

DN 139:188339

ED Entered STN: 19 Aug 2003

TI Coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors

IN Yukawa, Shigeo; Sato, Masaki

PA Kiwa Chemical Industry Co., Ltd., Japan; Nisshin Steel Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-00

ICS B05D001-36; B05D005-00; B05D005-04; B05D007-24; B32B015-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003231346	A2	20030819	JP 2002-32743	20020208
PRAI	JP 2002-32743		20020208		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

	JP 2003231346	ICM	B41M005-00
		ICS	B05D001-36; B05D005-00; B05D005-04; B05D007-24; B32B015-08

AB The metal plate has a laminate of  $\geq 1$  releasable temporal imaging layer capable to be printed and  $\geq 1$  base layers, wherein (i) the temporal imaging layer on the side being not in contact with the base layer is formed from a resin composition which absorbs sublimable dye-containing inks and does not cause blocking upon heat applied for sublimating the sublimable dyes to diffuse into the base layer for coloring, (ii) the base layer on the side being in contact with the base layer is formed from a glossy resin which does not have affinity to the sublimable dyes, and (iii) the temporal imaging layer is printed with sublimable dye-containing inks and subsequently heated to transfer the images by dye sublimation and diffusion into the base layer. Thus, a galvanized steel plate was pretreated for coating, applied with Crisvon NY 331 (polycarbonate-polyurethane), dried, applied with a F-containing resin coating Fluonate K 703 (HO-containing fluorooolefin polymer), Burnock DN 950 (polyisocyanate), and UV

STN search for 10765,797

absorbers, dried, applied with Patelacol K 510P containing 5.2% glass beads, , dried to form a temporal imaging layer, and printed with sublimable dye-containing ink-jet inks. The obtained test pieces were heated at 170° in hot dry air or heated at 150° in vacuo for sublimation of the dyes and transfer to the base layers. After these thermal treatments, the temporal imaging layer could be peeled off by using hands without breakage, leaving vivid print images on the base layer.

ST sublimation transfer printing coated metal plate

IT Alkenes, preparation  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fluoro, polymers, isocyanate-crosslinked, surface layer of base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polycarbonate-, base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Polycarbonates, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyurethane-, base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Transfer printing  
(sublimation; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Galvanized steel  
RL: TEM (Technical or engineered material use); USES (Uses)  
(substrate; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(temporal imaging layer; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 136362-19-1, Crisvon NY 331  
RL: TEM (Technical or engineered material use); USES (Uses)  
(base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 494870-36-9P, Burnock DN 950-Fluonate K 703 copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(surface layer of base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 577777-94-7P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(surface layer on base coating; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 165455-26-5, Ethyl vinyl ether-tetrafluoroethylene-trimethoxysilylethyl vinyl ether-vinyl pivalate copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)

STN search for 10765,797

(surface layer on base coating; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 495390-87-9, Patelacol K 510P

RL: TEM (Technical or engineered material use); USES (Uses)  
(temporal imaging layer, containing glass beads; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 109766-98-5, MZ 100 (magnetic powder) 201687-82-3, Fluonate FEM 600  
330574-11-3, Patelacol IJ 150 455311-39-4, Patelacol IJ 70

RL: TEM (Technical or engineered material use); USES (Uses)  
(temporal imaging layer; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

L15 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:214649 CAPLUS

DN 138:216851

ED Entered STN: 19 Mar 2003

TI Long-acting insecticidal heat fumigation mat having pulp or plastic plate partially covering the bottom of the mat and fumigation method

IN Manamide, Yoshihiro; Katsuda, Sumio

PA Dainippon Jochugiku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A01N025-34

ICS A01M001-20; A01N025-18; A01N053-02; A01N053-04

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003081708	A2	20030319	JP 2001-261151	20010830
PRAI	JP 2001-201390	A	20010702		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

JP 2003081708	ICM	A01N025-34
		ICS A01M001-20; A01N025-18; A01N053-02; A01N053-04

AB The insecticidal pulp mat (length 20-24 mm, width 32-38 mm, and thickness 2.0-3.0 mm), which is applied to a conventional elec. fumigation apparatus to show the insecticidal effect continuously over 5 days, has a pulp or plastic plate which has length roughly the same as that of the mat and width of 0.3-0.6 times that of the mat and shows thermal conductivity  $\leq 0.30 \text{ Wm}^{-1}\text{K}^{-1}$  at 300 K and is fixed to the mat at the short side with a clip, and contains (a)  $\geq 50 \text{ mg}$  pyrethroid insecticide showing vapor pressure  $\geq 4.0 + 10^{-6} \text{ mmHg}$  at  $20^\circ$  and (b) volatilization controller at its weight ratio to the pyrethroid  $\geq 0.3$ . Partially laminating the mat with the pulp or plastic plate substantially narrows surface area of a heating plate of the fumigation apparatus and prolongs volatilization period. A bakelite plate (22 mm + 17.5 mm + 2.2 mm, thermal conductivity 0.18  $\text{Wm}^{-1}\text{K}^{-1}$  at 300 K) was fixed on a pulp mat (22 mm + 35 mm + 2.8 mm) with a clip and the mat was impregnated with kerosene containing Pynamin D-forte 250, piperonyl butoxide 150, stabilizer 20 mg, and blue dye to give an insecticidal mat. The mat was placed on an elec. fumigation apparatus heated at  $180^\circ$  to show sufficient insecticidal

STN search for 10765,797

action on Culex tritaeniorhynchus for 5 days.

ST elec fumigation insecticidal mat partial plastic plate  
lamination; volatilization controller elec fumigation insecticidal mat;  
furamethrin elec fumigation mat partial bakelite plate  
lamination

IT Insecticides  
(fumigants; long-acting rectangular insecticidal elec. heat  
fumigation mat partially laminated with pulp or plastic plate  
to prolong volatilization period)

IT Fumigants  
(insecticidal; long-acting rectangular insecticidal elec. heat  
fumigation mat partially laminated with pulp or plastic plate  
to prolong volatilization period)

IT Fumigation  
(long-acting rectangular insecticidal elec. heat fumigation  
mat partially laminated with pulp or plastic plate to prolong  
volatilization period)

IT Epoxy resins, biological studies  
**Fluoro rubber**  
Phenolic resins, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(long-acting rectangular insecticidal elec. heat fumigation  
mat partially laminated with pulp or plastic plate to prolong  
volatilization period)

IT Cork  
(plate; long-acting rectangular insecticidal elec.  
heat fumigation mat partially laminated with pulp or plastic  
plate to prolong volatilization period)

IT Pyrethrins  
RL: BSU (Biological study, unclassified); BUU (Biological use,  
unclassified); BIOL (Biological study); USES (Uses)  
(pyrethroids; long-acting rectangular insecticidal elec. heat  
fumigation mat partially laminated with pulp or plastic plate  
to prolong volatilization period)

IT Polysiloxanes, biological studies  
RL: BSU (Biological study, unclassified); BUU (Biological use,  
unclassified); BIOL (Biological study); USES (Uses)  
(volatilization controller; long-acting rectangular insecticidal elec.  
heat fumigation mat partially laminated with pulp or plastic  
plate to prolong volatilization period)

IT 584-79-2, Esbiothrin 23031-36-9, Prallethrin 23031-38-1, Pynamin  
D-forte 118712-89-3, Transfluthrin  
RL: BSU (Biological study, unclassified); BUU (Biological use,  
unclassified); BIOL (Biological study); USES (Uses)  
(long-acting rectangular insecticidal elec. heat fumigation  
mat partially laminated with pulp or plastic plate to prolong  
volatilization period)

IT 9003-07-0, Polypropylene  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(long-acting rectangular insecticidal elec. heat fumigation  
mat partially laminated with pulp or plastic plate to prolong  
volatilization period)

IT 13358-11-7, Synepirin 500  
RL: BSU (Biological study, unclassified); BUU (Biological use,  
unclassified); BIOL (Biological study); USES (Uses)  
(volatilization controller; long-acting rectangular insecticidal elec.  
heat fumigation mat partially laminated with pulp or plastic  
plate to prolong volatilization period)

STN search for 10765,797

IT 51-03-6, Piperonyl butoxide 123-95-5, Butyl stearate  
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use);  
BIOL (Biological study); USES (Uses)  
(volatilization controller; long-acting rectangular insecticidal elec.  
heat fumigation mat partially laminated with pulp or plastic  
plate to prolong volatilization period)

L15 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:214648 CAPLUS

DN 138:216850

ED Entered STN: 19 Mar 2003

TI Long-acting insecticidal heat fumigation mat having clip for  
holding one side apart from heating plate and fumigation method

IN Manamide, Yoshihiro; Katsuta, Sumio

PA Dainippon Jochugiku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A01N025-34

ICS A01N025-10; A01N025-18; A01N053-02; A01N053-04; A01M001-20

CC 5-4 (Agrochemical Bioregulators)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003081707	A2	20030319	JP 2001-261150	20010830
PRAI	JP 2001-202632	A	20010703		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP	2003081707	ICM	A01N025-34
		ICS	A01N025-10; A01N025-18; A01N053-02; A01N053-04; A01M001-20

AB The insecticidal pulp mat (length 20-24 mm, width 32-38 mm, and thickness 2.0-3.0 mm), which is applied to a conventional elec. fumigation apparatus to show the insecticidal effect continuously over 5 days, has a clip having 2.0-4.0 mm-thick mount at one short side of the mat so that a gap gradually widening from the free side of the mat to the clipped side is formed between the mat and a heating plate of the fumigation apparatus and contains ≥50 mg pyrethroid insecticide showing vapor pressure ≥4 + 10-6 mmHg at 20° and volatilization controller at its weight ratio to the pyrethrins ≥0.3. Two clips having 2.5-mm-thick mount were attached to 2 corners of the short side of a pulp mat (22 mm + 35 mm + 2.8 mm) and the mat was impregnated with kerosene containing Pynamin D-forte 250, piperonyl butoxide 150, stabilizer 20 mg, and blue dye to give an insecticidal mat. The mat was placed on an elec. fumigation apparatus heated at 180° to show sufficient insecticidal action on Culex tritaeniorhynchus for 5 days.

ST elec fumigation insecticidal mat gap forming clip; volatilization controller elec fumigation insecticidal mat; furamethrin elec fumigation mat side clip

IT Fluoro rubber

Phenolic resins, biological studies

Polycarbonates, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(clip; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Insecticides

STN search for 10765,797

(fumigants; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Fumigants  
(insecticidal; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Fumigation  
(long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Pyrethrins  
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(pyrethroids; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Polysiloxanes, biological studies  
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(volatilization controller; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT 9003-07-0, Polypropylene  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(clip; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT 584-79-2, Esbiothrin 23031-36-9, Prallethrin 23031-38-1, Pynamin D-forte 118712-89-3, Transfluthrin  
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT 13358-11-7, Synepirin 500  
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(volatilization controller; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT 51-03-6, Piperonyl butoxide 123-95-5, Butyl stearate  
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(volatilization controller; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

L15 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:777824 CAPLUS  
DN 137:302264  
ED Entered STN: 11 Oct 2002  
TI Method and apparatus for textile ink jet printing  
IN Codos, Richard N.; Collan, William W.; Comerford, Robert B.; Quattrociocchi, Angelo; Badovinac, Milan  
PA L & P Property Management Company, USA  
SO PCT Int. Appl., 47 pp.  
CODEN: PIXXD2  
DT Patent

STN search for 10765,797

LA English  
IC ICM B41J002-01  
      ICS B41J002-165; C08J007-04  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s) : 40

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002078958	A1	20021010	WO 2002-US9963	20020328
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2397105	AA	20010719	CA 2001-2397105	20010109
	JP 2003519511	T2	20030624	JP 2001-551267	20010109
	US 2001038408	A1	20011108	US 2001-823268	20010330
	US 6467898	B2	20021022		
	US 2002005870	A1	20020117	US 2001-824517	20010402
	US 6702438	B2	20040309		
	US 2002044188	A1	20020418	US 2001-932427	20010817
	US 6726317	B2	20040427		
	CA 2442429	AA	20021010	CA 2002-2442429	20020328
	CA 2442500	AA	20021010	CA 2002-2442500	20020328
	EP 1381515	A1	20040121	EP 2002-719393	20020328
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	WO 2002079559	A3	20040325	WO 2002-US9700	20020328
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1419294	A2	20040519	EP 2002-717734	20020328
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004532750	T2	20041028	JP 2002-577201	20020328
	JP 2004533546	T2	20041104	JP 2002-577957	20020328
PRAI	US 2001-823268	A	20010330		
	US 2001-824517	A	20010402		
	US 2001-932427	A	20010817		
	US 2001-327622P	P	20011005		
	US 2001-333319P	P	20011126		
	US 1999-390571	A2	19990903		
	US 2000-480094	A	20000110		
	US 2000-649471	A	20000828		
	WO 2000-US24226	W	20000901		
	WO 2001-US596	W	20010109		
	US 2001-822794	A	20010330		

WO 2002-US9700	W	20020328
WO 2002-US9963	W	20020328

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002078958	ICM	B41J002-01
	ICS	B41J002-165; C08J007-04
US 2001038408	ECLA	B41J002/01; B41J011/00C1; D05B011/00; D06P005/00J; D06P005/20C; B41J003/407T; B41J011/00C
US 2002005870	ECLA	B41J002/01; B41J003/407T; B41J011/00C; B41J011/00C1; D05B011/00; D06P005/00J; D06P005/20C
US 2002044188	ECLA	B41J002/01; D06P005/00J; D06P005/20C; B41J003/407T; B41J011/00C; B41J011/00C1; D05B011/00
JP 2004532750	FTERM	2C056/EA07; 2C056/EA13; 2C056/EA16; 2C056/EC08; 2C056/EC11; 2C056/EC14; 2C056/EC31; 2C056/EC37; 2C056/EC77; 2C056/FA10; 2C056/FB03; 2C056/FC02; 2C056/HA44; 2C056/HA46; 2C056/JB04; 3F101/AB01; 3F101/AB09; 3F101/FB00; 3F101/FB17; 3F101/FC11; 3F101/LA06; 3F101/LB11; 4H057/AA02; 4H057/DA01; 4H057/DA34; 4H057/GA06; 4H057/JA02; 4H057/JB03
JP 2004533546	FTERM	3B150/AA01; 3B150/AA05; 3B150/AA27; 3B150/BA01; 3B150/CE01; 3B150/CE21; 3B150/CE23; 3B150/CE24; 3B150/EB09; 3B150/EE01; 3B150/EE07; 3B150/EH06; 3B150/EH15; 3B150/JA04; 3B150/JA33; 3B150/LA34; 3B150/LA63; 3B150/LA67; 3B150/LA71; 3B150/LA73; 3B150/MA00; 3B150/MA03; 3B150/NB00; 3B150/NB09; 3B150/NC03; 4L049/AA17; 4L049/BA39; 4L049/DA23; 4L049/EA06; 4L049/FA01

AB Ink jet printing on large area substrates such as wide width textile webs, large panel and other extended area substrates at high speed and com. scale, is achieve via a specially designed ink jet printer and uv-curable ink. The printheads are driven by linear servo motors across a bridge that extends across the substrate. The timing of the jetting of the ink is coordinated with the motion of the printheads, so that the heads can be rapidly moved and the ink can be jetted while the printheads are accelerating or decelerating as they move on the bridge. Preferably, UV light curable ink is jetted and first partially cured with UV light and then subjected to heating to more completely reduce uncured monomers of the ink on the substrate. Preferably, the heat is applied by contacting the substrate with a heated plate. Ink jet printing is provided using UV light curable or other curable composition or stable or other printable substance. In certain embodiments the UV ink has a dye-component therein. The ink is jetted onto a substrate, the composition is cured, then heated to set the dye. Sublimation dye-based UV ink printing onto polyester is preferred. A release layer of protective material such as a TEFILON film or sheet, covers a substrate support. A porous substrate to be printed, such as a textile material, is supported on or above the support. Ink is jetted onto the substrate, with some of the ink passing through pores in the substrate and landing on the protective material. UV curable ink is preferably used and is exposed by UV light from a UV light curing head, which solidifies the ink on the substrate. The UV curing light has a long enough focal length to focus on the surface of the substrate and also, where it passes through pores in the substrate, on ink on the protective material, thereby solidifying the ink on the protective material. When the substrate is removed from the support, the solidified ink on the protective material may be wiped from the protective material. The protective material may be a coating on the support over which the substrate slides or a belt that moves with the substrate. A textile substrate may be preconditioned by singeing or shaving to remove fuzz from the fabric that could clog the

STN search for 10765,797

printheads. A printhead cleaning station is also provided.  
ST textile inkjet printing printer uv curable ink  
IT Textile printing  
    (ink-jet, large area; method and apparatus)  
IT Inks  
    (jet-printing, uv-curable; method and apparatus for textile ink jet  
    printing)  
IT Textiles  
    (method and apparatus for ink jet printing)  
IT Ink-jet printer heads  
Ink-jet printers  
Ink-jet printing  
    (method and apparatus for textile ink jet printing)  
IT Fluoropolymers, uses  
Polyesters, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material  
use); USES (Uses)  
    (method and apparatus for textile ink jet printing)  
IT Dyes  
    (sublimable; method and apparatus for textile ink jet printing)  
IT Ink-jet printing  
    (textile, large area; method and apparatus)  
IT 9002-84-0, Teflon  
RL: POF (Polymer in formulation); TEM (Technical or engineered material  
use); USES (Uses)  
    (method and apparatus for textile ink jet printing)  
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Codos; US 6312123 B1 2001 CAPLUS  
(2) Eade; US 6302514 B1 2001  
(3) Hoffman; US 4293233 A 1981  
(4) Martin; US 6220691 B1 2001  
(5) Paulson; US 6270858 B1 2001 CAPLUS  
(6) Szyszko; US 5809877 A 1998  
(7) Wen; US 6092890 A 2000 CAPLUS

L15 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:553400 CAPLUS  
DN 137:132119  
ED Entered STN: 26 Jul 2002  
TI IR-sensitive direct-imaging positive-working lithographic plate  
precursor  
IN Oda, Akio  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-004  
    ICS G03F007-004; B41N001-14; G03F007-00; G03F007-032; G03F007-039;  
    G03F007-095  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
FAN.CNT 1  
PATENT NO.            KIND            DATE            APPLICATION NO.            DATE  
-----            -----            -----            -----            -----  
PI JP 2002207288        A2        20020726        JP 2001-2363        20010110  
PRAI JP 2001-2363               20010110  
CLASS  
PATENT NO.            CLASS            PATENT FAMILY CLASSIFICATION CODES

-----  
JP 2002207288 ICM G03F007-004  
ICS G03F007-004; B41N001-14; G03F007-00; G03F007-032;  
G03F007-039; G03F007-095  
AB The title lithog. plate precursor has a heat-sensitive layer, which contains a heat-sensitive water-insol. alkali solubilizable resin, an IR-absorbing dye, a F-containing polymer, on a hydrophilic support, wherein the heat-sensitive layer contains ≥1.4 % F-containing polymer based on the total solid component and has ≤1.4 g/cm<sup>2</sup> coating amount. The lithog. plate precursor shows the wide development latitude.  
ST IR sensitive imaging pos working lithog plate precursor  
IT Lithographic plates  
(IR-sensitive direct-imaging pos.-working lithog. plate precursor)  
IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluoropolymer for IR-sensitive direct-imaging pos.-working lithog. plate precursor)  
IT 115515-73-6, Defensa MCF 312 137462-24-9, Megafac F 176  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluoropolymer for IR-sensitive direct-imaging pos.-working lithog. plate precursor)  
  
L15 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:82278 CAPLUS  
DN 136:136209  
ED Entered STN: 31 Jan 2002  
TI Polyester fiber structures with good stretchability and lasting odor absorption and antibacterial properties and soiling resistance manufactured by treating structures of polyester fibers consisting mainly poly(trimethylene terephthalate) with mixtures containing silicon titanium oxide and alkylsilicate polymers, silicones and/or fluoropolymers  
IN Hirata, Masayuki; Matsuda, Isao; Honda, Hidenobu  
PA Toray Industries, Inc., Japan  
SO Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM D06M011-77  
ICS D01F006-62; D01F008-14; D02G001-02; D03D015-00; D04B001-16;  
D04B021-00; D06M011-46; D06M015-643  
CC 40-9 (Textiles and Fibers)  
FAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE  
-----  
PI JP 2002030568 A2 20020131 JP 2000-213864 20000714  
PRAI JP 2000-213864 20000714  
CLASS  
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES  
-----  
JP 2002030568 ICM D06M011-77  
ICS D01F006-62; D01F008-14; D02G001-02; D03D015-00;  
D04B001-16; D04B021-00; D06M011-46; D06M015-643  
AB The polyester fiber structures (A) comprise polyester fibers mainly consisting of poly(trimethylene terephthalate) (I) and essentially have the surface having mixts. containing silicon titanium oxide (II) and alkyl silicate polymers, silicones, and/or fluoropolymers, or the polyester fiber structures comprise A structures having the polyester fibers consisting of a component comprising mainly I and a polyester

component affixed in the fiber length direction in a side-by-side form, or the polyester fiber structure comprise A structures having the polyester fibers exhibiting temperature (T) for maximum heat shrinkage force  $\geq 110^\circ$  and maximum heat shrinkage force (F)  $\geq 0.25$  cN/dtex, or the polyester fiber structures comprise A structures having the polyester fibers exhibiting crimp stretch under load  $\geq 15\%$ , or the polyester fiber structures comprise A structures having II content 0.05-30% (on fiber structure). The fiber structures are useful for clothing and curtains. I with intrinsic viscosity (IV) 1.18 and PET with IV 0.60 were together melt spun at  $280^\circ$  and 50:50 weight ratio to form side-by-side bicomponent fibers, drawn to draw ratio 3.0 at hot roll temperature  $85^\circ$  and hot plate temperature  $145^\circ$  to give 55-dtex/24-filament yarns exhibiting T  $130^\circ$ , F 0.33 cN/dtex, and crimp stretch under load 20.5%. A woven fabric of the spun filament yarns was prepared, relaxed in H<sub>2</sub>O at  $110^\circ$ , heat-set in a tenter at  $190^\circ$ , treated with an alkali solution to cause weight loss of the fabric 15%, dyed with a disperse dye at  $120^\circ$ , treated with an aqueous dispersion containing CLG-520 (alkyl silicate polymer) 0.5, BY 22-826 (silicone) 2.0, AG-710 (fluoropolymer) 5.0, and II (TR-T 2; average particle diameter 0.3  $\mu\text{m}$ ) 0.8%, and squeezed to pick up 80%. The treated fabric was dried and heat-treated 1 min at  $180^\circ$  to give a fabric exhibiting stretch 20 and 32%, resp., in the warp and filling directions and showing NH<sub>3</sub> (g) absorption 99% on sealing 10 g sample in a container with NH<sub>3</sub> (g) content 200 ppm for 1 h and exhibiting bacteria resistance (log B/A; passing value  $\geq 2.2$ ) 5.2 initially and 4.5 after 10 washings and showing good soiling resistance.

ST polytrimethylene terephthalate PET bicomponent fiber fabric stretchable antibacterial deodorant; polyester fiber fabric antibacterial deodorant soiling resistant; silicon titanium oxide deodorant antibacterial finish polyester fabric; alkyl silicate polymer binder polyester fabric deodorant antibacterial finishing; silicone binder polyester fabric deodorant antibacterial finishing; fluoropolymer binder polyester fabric deodorant antibacterial finishing; photocatalyst silicon titanium oxide deodorant antibacterial finish polyester fabric; clothing polyester fabric antibacterial deodorant soiling resistant; curtain polyester fiber fabric antibacterial deodorant soiling resistant

IT Polysiloxanes, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(BY 22-826, binders; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Odor and Odorous substances  
(absorbents; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Fluoropolymers, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(binders; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Household furnishings  
(curtains; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders for)

IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC

(Process); USES (Uses)  
(fabrics; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Polyesters, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with poly(trimethylene terephthalate); polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester with mixts. of silicon titanium oxide and polymer binders)

IT Absorbents  
(for odor; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Antibacterial agents  
Deodorants  
Photolysis catalysts  
Soilproofing  
(polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Clothing  
(polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders for)

IT Polyesters, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester with mixts. of silicon titanium oxide and polymer binders)

IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(terephthalic acid-trimethylene glycol, bicomponent with PET fiber; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT 681-84-5, CLG 520 42610-70-8, Asahiguard AG 710  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(binder; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating fabrics of fibers from poly(trimethylene terephthalate) with mixts. of silicon titanium oxide and polymer binders)

IT 26546-03-2, Terephthalic acid-trimethylene glycol copolymer, sru 26590-75-0, Poly(trimethylene terephthalate)  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with PET; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT 25038-59-9, Poly(ethylene terephthalate), uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP

STN search for 10765,797

(Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with poly(trimethylene terephthalate); polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester with mixts. of silicon titanium oxide and polymer binders)

IT 52337-09-4, Silicon titanium oxide 347859-02-3, TR-T 2  
RL: CAT (Catalyst use); MOA (Modifier or additive use); USES (Uses)  
(polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating fabrics of fibers from poly(trimethylene terephthalate) with mixts. of silicon titanium oxide and polymer binders)

L15 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:704896 CAPLUS  
DN 131:307662  
ED Entered STN: 04 Nov 1999  
TI Method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate  
IN Mitsuhashi, Masato  
PA Hitachi Chemical Co., Ltd., Japan; Hitachi Chemical Research Center, Inc.  
SO U.S., 21 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
IC ICM C12Q001-68  
NCL 435006000  
CC 3-1 (Biochemical Genetics)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5976797	A	19991102	US 1996-772150	19961220
PRAI US 1996-772150		19961220		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5976797	ICM	C12Q001-68
	NCL	435006000
US 5976797	ECLA	C12Q001/68D2+525/173; C12Q001/68D2+563/173; C12Q001/68D2+565/501

AB A method for quantifying total mRNA in a biol. sample containing RNA such as crude cell lysates containing cytosolic mRNA, which method comprises the steps of: (a) incubating the sample with an oligo-(dT)- or poly-U-immobilized microtiter plate; (b) washing non-hybridized components from the microtiter plate; (c) labeling the hybridized mRNA with a photometric nucleic-acid dye; (d) measuring the amount of label captured on the microtiter plate; (e) heat-denaturing the labeled mRNA; (f) washing the denatured mRNA from the microtiter plate; and (g) measuring the amount of label remaining on the microtiter plate; and (h) correlating the amount of the measured label (captured label minus remaining label) with the quantity of total mRNA present in the sample, thereby easily measuring the total mRNA without the influence of rRNA or tRNA and without radioactive dyes, which method can be adapted to chemosensitivity tests.

ST mRNA polyA oligonucleotide immobilized microtiter plate  
IT Cytoplasm  
(cytosol; method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)  
IT Cell  
Denaturation enthalpy

STN search for 10765,797

Dyes

**Fluorometry**

  Immobilization, biochemical

  Microtiter plates

  Nucleic acid hybridization

  Washing

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT RNA

  RL: AMX (Analytical matrix); ANST (Analytical study)

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT mRNA

  RL: ANT (Analyte); ANST (Analytical study)

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT Oligonucleotides

  RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT Nucleic acids

  RL: ARU (Analytical role, unclassified); ANST (Analytical study)

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT rRNA

  RL: ARU (Analytical role, unclassified); ANST (Analytical study)

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT tRNA

  RL: ARU (Analytical role, unclassified); ANST (Analytical study)

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT 50-89-5, Thymidine, uses 24937-83-5, Poly(A) 27416-86-0, Poly-U

143413-84-7, Toto-1 143413-85-8, Yoyo-1 166196-17-4, Toto-3

  RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT 7440-62-2D, Vanadium, complex with ribonucleotides, analysis

142298-75-7, Rnase inhibitor

  RL: ARU (Analytical role, unclassified); ANST (Analytical study)

    (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Shroder; Biochemistry 1990, V29, P2368

L15 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1977:125775 CAPLUS

DN 86:125775

ED Entered STN: 12 May 1984

TI Heat-resistant color penetrants for nondestructive testing of metals

IN Molina, Orlando G.

PA Rockwell International, USA

SO Ger. Offen., 34 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C09K003-00

CC 56-7 (Nonferrous Metals and Alloys)

## FAN.CNT 13

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2622997	A1	19761209	DE 1976-2622997	19760522
	US 4049568	A	19770920	US 1975-580442	19750523
	CA 1045529	A1	19790102	CA 1976-252416	19760513
	GB 1554185	A	19791017	GB 1976-20303	19760517
	FR 2311835	A1	19761217	FR 1976-15551	19760521
	FR 2311835	B3	19790216		
PRAI	US 1975-580442	A	19750523		
	US 1974-444432	A2	19740221		
	US 1974-444433	A2	19740221		
	US 1974-521730	A2	19741107		
	US 1974-535262	A2	19741223		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 2622997	IC	C09K003-00

AB Surface cracks and voids were traced by a heat-resistant, water-removable, and biodegradable penetrating fluorescent composition. The fluorescent composition comprises a dye, a liquid surfactant, and SiO<sub>2</sub>. A preferred surfactant is a mixture of ethoxylated linear secondary aliphatic alcs. with 3-12 moles of ethylene oxide. After removing the excess of the dye-surfactant- SiO<sub>2</sub> composition, the surface is examined by using a fluorescent excitation source to make visible the cracks and voids. Thus, a gel was prepared containing 5 volume parts SiO<sub>2</sub> and 1 volume part of a mixture of

Tergitol 15-S-5 [37224-39-8] (surfactant), Calcofluor White RW [12224-04-3] and Fluorol 7 GA [12226-96-9] (fluorescent dyes), the ratio Tertigol: Calcofluor: Fluorol being 100:5:1.5. An Al plate with microcracks was heated to 300°F and brushed with the gel. The excess of the gel was removed from the surface with water without removing the gel from the microcracks. The surface was air-dried and the microcracks were observed under UV irradiation

ST aluminum crack tracing fluorescence; dye penetrant crack void; chromium plating brass

IT Testing of materials

(for surface cracks and voids, heat-resistant color penetrants for)

IT Dyes

(penetrant comps. containing, for surface crack detection in metals)

IT Metals, properties

RL: PRP (Properties)

(surface cracks in, detection by color penetrants)

IT Alcohols

RL: USES (Uses)

(C11-15-secondary, ethoxylated, color penetrant composition containing, for crack detection in metal surface)

IT 12597-71-6, uses and miscellaneous

RL: USES (Uses)

(chromium coatings on, crack detection in, by color penetrants)

IT 7440-47-3, uses and miscellaneous

RL: USES (Uses)

(coatings, on brass, crack detection in, by color penetrants)

IT 12627-03-1

RL: USES (Uses)

(color penetrant composition containing, for crack detection in metal surface)

IT 7631-86-9, properties 8066-05-5 19125-99-6

RL: PRP (Properties)

STN search for 10765,797

(color penetrant composition containing, for crack detection in metal surface)  
IT 7429-90-5, properties  
RL: PRP (Properties)  
(surface cracks in, detection by color penetrants)

=> d his

(FILE 'HOME' ENTERED AT 15:49:50 ON 15 MAR 2005)

FILE 'CPLUS' ENTERED AT 15:50:01 ON 15 MAR 2005  
L1 637015 S INFRARED OR IR OR INFRA RED  
L2 7711 S L1 AND DYE  
L3 309 S L2 AND FLUORO?  
L4 10 S L3 AND PERFLUORO?  
L5 0 S L4 NOT L3  
L6 44388 S LITHOGRAPH? OR PLANOGRAPH?  
L7 6 S L6 AND L3  
L8 0 S L4 AND L6  
L9 11 S L3 AND PLATE  
L10 6 S L9 NOT L6  
L11 38550 S HEAT AND PLATE  
L12 528 S L11 AND DYE  
L13 12 S L12 AND FLUORO?  
L14 1 S L12 AND PERFLUORO?  
L15 13 S L13 OR L14

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	105.30	105.51
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-18.25	-18.25

STN INTERNATIONAL LOGOFF AT 15:53:44 ON 15 MAR 2005

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptau156cxh

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* \* \* \* \* \* Welcome to STN International \* \* \* \* \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 01 New pricing for the Save Answers for SciFinder Wizard within  
STN Express with Discover!

STN search for 10765,797

NEWS 4 OCT 28 KOREPAT now available on STN  
NEWS 5 NOV 30 PHAR reloaded with additional data  
NEWS 6 DEC 01 LISA now available on STN  
NEWS 7 DEC 09 12 databases to be removed from STN on December 31, 2004  
NEWS 8 DEC 15 MEDLINE update schedule for December 2004  
NEWS 9 DEC 17 ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 10 DEC 17 COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 11 DEC 17 SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 12 DEC 17 CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 13 DEC 17 THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB  
NEWS 14 DEC 30 EPFULL: New patent full text database to be available on STN  
NEWS 15 DEC 30 CAPLUS - PATENT COVERAGE EXPANDED  
NEWS 16 JAN 03 No connect-hour charges in EPFULL during January and February 2005  
NEWS 17 FEB 25 CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered  
NEWS 18 FEB 10 STN Patent Forums to be held in March 2005  
NEWS 19 FEB 16 STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005  
NEWS 20 FEB 28 PATDPAFULL - New display fields provide for legal status data from INPADOC  
NEWS 21 FEB 28 BABS - Current-awareness alerts (SDIs) available  
NEWS 22 FEB 28 MEDLINE/LMEDLINE reloaded  
NEWS 23 MAR 02 GBFULL: New full-text patent database on STN  
NEWS 24 MAR 03 REGISTRY/ZREGISTRY - Sequence annotations enhanced  
NEWS 25 MAR 03 MEDLINE file segment of TOXCENTER reloaded

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 15:59:04 ON 15 MAR 2005

=> s lithog? or planograph?

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

STN search for 10765,797

=> file caplus	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 15:59:38 ON 15 MAR 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 15 Mar 2005 VOL 142 ISS 12  
FILE LAST UPDATED: 14 Mar 2005 (20050314/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s lithog?  
L1      59363 LITHOG?  
  
=> s planogr?  
L2      715 PLANOGR?  
  
=> s l1 or l2  
L3      59785 L1 OR L2  
  
=> s heat? or infrared or infra red or ir or thermal printhead or thermal print head  
    2191254 HEAT?  
    232042 INFRARED  
    4681 INFRA  
    363053 RED  
    4071 INFRA RED  
        (INFRA(W) RED)  
    562469 IR  
    974828 THERMAL  
    426 PRINthead  
    21 THERMAL PRINthead  
        (THERMAL(W) PRINthead)  
    974828 THERMAL  
    17831 PRINT  
    108669 HEAD  
    75 THERMAL PRINT HEAD  
        (THERMAL(W) PRINT(W) HEAD)  
L4      2760301 HEAT? OR INFRARED OR INFRA RED OR IR OR THERMAL PRINthead OR  
        THERMAL PRINT HEAD  
  
=> s l4 and l3  
L5      6643 L4 AND L3
```

STN search for 10765,797

=> s fluoro? or perfluoro?  
379314 FLUORO?  
47229 PERFLUORO?  
L6 400557 FLUORO? OR PERFLUORO?

=> s 16 and 15  
L7 215 L6 AND L5

=> s dye  
L8 242856 DYE

=> s 17 and 18  
L9 10 L7 AND L8

=> d all 1-10

L9 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:158314 CAPLUS  
ED Entered STN: 24 Feb 2005  
TI Polymer compositions and lithographic printing plates using them  
with excellent development latitude and chemical and wear resistance  
IN Nakamura, Ippei  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 82 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-033  
ICS G03F007-00; G03F007-004; G03F007-11  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005049640	A2	20050224	JP 2003-281935	20030729
PRAI JP 2003-281935		20030729		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005049640	ICM	G03F007-033
	ICS	G03F007-00; G03F007-004; G03F007-11
JP 2005049640	FTERM	2H025/AA04; 2H025/AA06; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB14; 2H025/CB41; 2H025/CC11; 2H025/CC20; 2H025/DA36; 2H025/FA17; 2H096/AA06; 2H096/BA09; 2H096/EA04; 2H096/GA08

100  
new

AB The compns., changing solubility to aqueous alkaline solns. by IR laser  
exposure, contain copolymers, bearing monomer units AZQY (A =  
polymerizable double bond-containing monovalent organic group; Z = single bond,  
divalent organic group; X = R1-4-substituted phenylene; R1-4 = H, halo,  
alkoxy, alkyl, aryl; Y = aminosulfonyl, OH) and onium salt-containing monomer  
units, and IR absorbers. The plates consist of supports, lower  
recording layers containing the copolymers, and upper recording layers  
containing

water-insol. and alkali-soluble polymers and development inhibitors, wherein  
the lower and/or upper layers contain IR absorbers.

ST lithog plate IR laser exposure sensitivity; IR  
absorber printing plate development latitude; chem resistance  
lithog plate aminosulfonylphenyl polymer

STN search for 10765,797

IT Optical materials  
(IR absorbers; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Dyes  
(IR-absorbing, recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT IR materials  
(absorbers; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Phenolic resins  
RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak, cresol-based, recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Lithographic plates  
(presensitized; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Fluoropolymers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Polymers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(water-insol. and alkali-soluble, upper recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT 134127-48-3 193687-61-5  
RL: TEM (Technical or engineered material use); USES (Uses)  
(IR-absorbing dye, recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT 27029-76-1, PR 54046 217651-44-0 251098-96-1 844699-05-4  
844699-06-5 844699-07-6 844699-08-7 844699-09-8 844699-10-1  
844699-11-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT 7429-90-5, Aluminum  
RL: TEM (Technical or engineered material use); USES (Uses)  
(support; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

L9 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:779904 CAPLUS

DN 141:304301

ED Entered STN: 24 Sep 2004

TI Heat-sensitive lithographic printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent

IN Deroover, Geert; Van Damme, Marc

PA Agfa-Gevaert, Belg.

SO U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

STN search for 10765,797

DT Patent  
LA English  
IC ICM B41N001-00  
NCL 101453000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004182268	A1	20040923	US 2004-765797	20040127
	JP 2004341484	A2	20041202	JP 2004-18894	20040127
PRAI	EP 2003-100154	A	20030127		
	US 2003-444470P	P	20030203		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 2004182268	ICM	B41N001-00
		NCL	101453000
	JP 2004341484	FTERM	2H025/AA02; 2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB51; 2H025/CC11; 2H025/DA03; 2H025/FA17; 2H096/AA06; 2H096/BA09; 2H096/EA04; 2H096/GA08

*Same*

OS MARPAT 141:304301

AB A heat-sensitive pos. working lithog. printing plate precursor is described that has high differentiation between exposed and non-exposed areas and which has high sensitivity. Thus, the plate precursor comprises a hydrophilic support and a coating consisting of a first layer containing an oleophilic resin soluble in an aqueous alkaline developer and a second layer containing a water repellent compound. The coating comprises an IR absorbing dye sensitizer containing a perfluoroalkyl group that provides the printing plate precursor with high sensitivity. The IR absorbing dye can be present in the first layer, or in the second layer or in the optional other layer.

ST heat sensitive lithog printing plate precursor  
IR dye; perfluoroalkyl substituent IR  
dye lithog printing plate precursor

IT Dyes

(IR-absorbing; heat-sensitive pos. lithog  
. printing plate precursor containing IR absorbing dye  
with perfluoroalkyl substituent)

IT Surfactants

(heat-sensitive pos. lithog. printing plate  
precursor containing IR absorbing dye with  
perfluoroalkyl substituent)

IT Lithographic plates

(heat-sensitive; heat-sensitive pos. lithog  
. printing plate precursor containing IR absorbing dye  
with perfluoroalkyl substituent)

IT Polysiloxanes, uses

RL: DEV (Device component use); USES (Uses)  
(polyether-, Tego wet 265, oleophilic resin layer; heat  
-sensitive pos. lithog. printing plate precursor containing  
IR absorbing dye with perfluoroalkyl  
substituent)

IT Polysiloxanes, uses

RL: DEV (Device component use); USES (Uses)  
(polyoxyalkylene-, graft, Tego glide 410, oleophilic resin layer;  
heat-sensitive pos. lithog. printing plate precursor

STN search for 10765,797

containing IR absorbing dye with perfluoroalkyl substituent)

IT Polyoxalkylenes, uses  
RL: DEV (Device component use); USES (Uses)  
(polysiloxane-, graft, Tego glide 410, oleophilic resin layer;  
heat-sensitive pos. lithog. printing plate precursor  
containing IR absorbing dye with perfluoroalkyl substituent)

IT Polyethers, uses  
RL: DEV (Device component use); USES (Uses)  
(siloxane-, Tego wet 265, oleophilic resin layer; heat  
-sensitive pos. lithog. printing plate precursor containing  
IR absorbing dye with perfluoroalkyl substituent)

IT 134127-48-3  
RL: NUU (Other use, unclassified); USES (Uses)  
(comparison dye; heat-sensitive pos. lithog  
. printing plate precursor containing IR absorbing dye  
with perfluoroalkyl substituent)

IT 762276-41-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(comparison dye; heat-sensitive pos. lithog  
. printing plate precursor containing IR absorbing dye  
with perfluoroalkyl substituent)

IT 762276-37-9P 762276-38-0P 762276-39-1P 762276-40-4P  
RL: DEV (Device component use); SPN (Synthetic preparation); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(dye; heat-sensitive pos. lithog.  
printing plate precursor containing IR absorbing dye  
with perfluoroalkyl substituent)

IT 573-11-5, 2,3,4-Trimethoxybenzoic acid 1320-67-8, Methoxypropanol  
56730-76-8, Fluorad 100346-90-5, Alnovol SPN452  
RL: DEV (Device component use); USES (Uses)  
(heat-sensitive pos. lithog. printing plate  
precursor containing IR absorbing dye with  
perfluoroalkyl substituent)

IT 142-04-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(intermediate in synthesis of comparison dye; synthesis of  
IR absorbing dye sensitizer)

IT 98826-99-4P 762276-49-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(intermediate in synthesis of comparison dye; synthesis of  
IR absorbing dye sensitizer)

IT 15901-42-5 41532-84-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(intermediate; synthesis of IR absorbing dye  
sensitizer)

IT 6761-94-0P 29457-72-5P 61010-04-6P 121276-93-5P 200574-76-1P  
263762-34-1P 762276-42-6P 762276-43-7P 762276-44-8P 762276-45-9P  
762276-46-0P 762276-47-1P 762276-48-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(intermediate; synthesis of IR absorbing dye  
sensitizer)

IT 7429-90-5D, Aluminum, oxidized  
RL: DEV (Device component use); USES (Uses)  
(support; Heat-sensitive lithog. printing plate  
precursor containing IR absorbing dye with

STN search for 10765,797

perfluoroalkyl substituent)  
IT 530-62-1, 1,1'-Carbonyldiimidazole 34598-33-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis of IR absorbing dye sensitizer)  
IT 12707-52-7, FC431  
RL: DEV (Device component use); USES (Uses)  
(water repellent; heat-sensitive pos. lithog.  
printing plate precursor containing IR absorbing dye  
with perfluoroalkyl substituent)

L9 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:77992 CAPLUS

DN 140:136456

ED Entered STN: 30 Jan 2004

TI Lithographic printing plates for IR laser direct  
platemaking with excellent scratch resistance and development latitude

IN Miyake, Hideo

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004029680	A2	20040129	JP 2002-189993	20020628
PRAI JP 2002-189993		20020628		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004029680	ICM	G03F007-004
	ICS	G03F007-00
JP 2004029680	FTERM	2H025/AA04; 2H025/AA12; 2H025/AA13; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB52; 2H025/CC04; 2H025/CC20; 2H025/FA03; 2H025/FA17; 2H096/AA07; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/CA12; 2H096/EA04; 2H096/GA08

To  
new

AB The plates have recording layers containing water-insol. and alkali-soluble  
polymers and IR absorbers on supports, wherein the layers are  
formed from coatings containing surfactants bearing reactive groups and F or  
Si elements.

ST lithog printing plate scratch resistance; printing plate  
recording layer reactive surfactant; fluorine surfactant plate IR  
development latitude

IT Optical materials

(IR absorbers; lithog. printing plates having  
reactive surfactant-containing recording layers with good scratch  
resistance and development latitude for IR laser direct  
platemaking)

IT IR materials

(absorbers; lithog. printing plates having reactive  
surfactant-containing recording layers with good scratch resistance and  
development latitude for IR laser direct platemaking)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak, cresol-based, recording layer; lithog. printing

STN search for 10765,797

plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT **Lithographic plates**  
(presensitized; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT **Fluoropolymers, uses**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(reactive surfactant, recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT **Surfactants**  
(reactive; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT 134127-48-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(IR-absorbing dye, recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT 649756-66-1 649756-67-2 649756-69-4 649756-70-7 649756-71-8  
649756-73-0 649756-75-2 650609-70-4 650609-72-6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(reactive surfactant, recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT 58931-97-8P, Methacrylic acid-propyl methacrylate copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT 27029-76-1, PR 54046 141634-00-6, Acrylonitrile-N-(4-amino sulfonylphenyl)methacrylamide-methyl methacrylate copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

L9 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:553400 CAPLUS

DN 137:132119

ED Entered STN: 26 Jul 2002

TI IR-sensitive direct-imaging positive-working lithographic plate precursor

IN Oda, Akio

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-004; B41N001-14; G03F007-00; G03F007-032; G03F007-039;  
G03F007-095

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

STN search for 10765,797

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002207288	A2	20020726	JP 2001-2363	20010110
PRAI	JP 2001-2363		20010110		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 2002207288	ICM	G03F007-004
		ICS	B41N001-14; G03F007-00; G03F007-032; G03F007-039; G03F007-095

AB The title lithog. plate precursor has a heat-sensitive layer, which contains a heat-sensitive water-insol. alkali solubilizable resin, an IR-absorbing dye, a F-containing polymer, on a hydrophilic support, wherein the heat-sensitive layer contains  $\geq 1.4$  % F-containing polymer based on the total solid component and has  $\leq 1.4$  g/cm<sup>2</sup> coating amount. The lithog. plate precursor shows the wide development latitude. ✓

ST IR sensitive imaging pos working lithog plate precursor

IT Lithographic plates  
(IR-sensitive direct-imaging pos.-working lithog. plate precursor)

IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluoropolymer for IR-sensitive direct-imaging pos.-working lithog. plate precursor)

IT 115515-73-6, Defensa MCF 312 137462-24-9, Megafac F 176  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluoropolymer for IR-sensitive direct-imaging pos.-working lithog. plate precursor)

L9 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:778174 CAPLUS

DN 135:325292

ED Entered STN: 26 Oct 2001

TI Near-IR-sensitive positive photoimaging materials and presensitized lithographic plates therefrom

IN Urano, Toshiyoshi; Minakami, Junji

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS B41N001-14; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001296652	A2	20011026	JP 2000-113118	20000414
PRAI	JP 2000-113118		20000414		

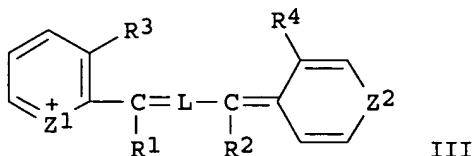
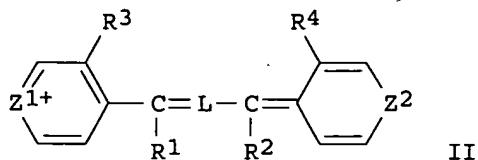
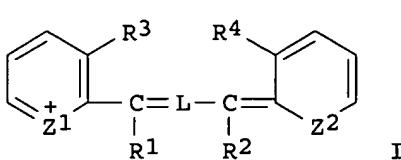
CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 2001296652	ICM	G03F007-004
		ICS	B41N001-14; G03F007-00

OS MARPAT 135:325292

STN search for 10765,797

GI



AB The materials, showing high solvent solubility and offering high-contrast patterns, comprise alkali-soluble resins and near-IR-absorbing dyes composed of (thio)pyrylium cations and fluoroarylboride anions. The cations may be represented by I-III [Z1, Z2 = O, S; R1-4 = H, alkyl; L = (un)substituted mono-, tri-, penta-, or heptamethine bridge].

ST thiopyrylium pyrylium IR dye pos photoimaging;  
pyrylium fluoroarylboride IR dye pos  
photoimaging; lithog master pyrylium IR absorbing  
dye; solvent solv pattern contrast pyrylium photoimaging

IT Dyes  
(IR-absorbing, near-IR; near-IR-sensitive  
pos. photoimaging materials containing sp. (thio)pyrylium dyes for  
lithog. platemaking)

IT Phenolic resins, uses  
RL: DEV (Device component use); TEM (Technical or engineered material  
use); USES (Uses)  
(novolak, cresol-based; near-IR-sensitive pos. photoimaging  
materials containing sp. (thio)pyrylium dyes for lithog.  
platemaking)

IT Photoimaging materials  
(pos., near-IR-sensitive; near-IR-sensitive pos.  
photoimaging materials containing sp. (thio)pyrylium dyes for  
lithog. platemaking)

IT Lithographic plates  
(presensitized; near-IR-sensitive pos. photoimaging materials  
containing sp. (thio)pyrylium dyes for lithog. platemaking)

IT 368421-31-2 368421-32-3  
RL: CAT (Catalyst use); USES (Uses)  
(light-heat-converting layers; near-IR-sensitive  
pos. photoimaging materials containing sp. (thio)pyrylium dyes for  
lithog. platemaking)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 367953-19-3  
RL: DEV (Device component use); TEM (Technical or engineered material  
use); USES (Uses)  
(light-heat-converting layers; near-IR-sensitive  
pos. photoimaging materials containing sp. (thio)pyrylium dyes for  
lithog. platemaking)

L9 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:472601 CAPLUS

DN 135:84326

STN search for 10765,797

ED Entered STN: 29 Jun 2001  
TI Thermal digital lithographic printing plate  
IN Patel, Jayanti; Saraiya, Shashikant; Hauck, Celin-Savariar; Huang, Jianbing; Mikell, Frederic; Shimazu, Kenichi; Merchant, Nishith  
PA Kodak Polychrome Graphics Company Ltd., USA  
SO PCT Int. Appl., 39 pp.  
CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001045958	A2	20010628	WO 2000-US42759	20001212
	WO 2001045958	A3	20020131		
	W: BR, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	US 6352811	B1	20020305	US 1999-469490	19991222
	BR 2000016716	A	20020903	BR 2000-16716	20001212
	EP 1263590	A2	20021211	EP 2000-992907	20001212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2003518264	T2	20030603	JP 2001-546484	20001212
PRAI	US 1999-469490	A	19991222		
	US 1998-90300P	P	19980623		
	US 1999-301866	A2	19990429		
	WO 2000-US42759	W	20001212		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001045958	ICM	B41M005-00
US 6352811	ECLA	B41C001/10A

AB The invention relates to thermal lithog. plates that are imaged with an IR laser and processed with an aqueous alkaline developer. The thermal imaging element is made up of a substrate and a composite layer structure composed of 2 layer coatings. Preferably, the 1st layer of the composite is composed of an aqueous developable polymer mixture containing a solubility

inhibiting material and a photothermal conversion material which is contiguous to the hydrophilic substrate. The 2nd layer of the composite is insol. in the aqueous solution, is ink receptive, and is composed of ≥1 nonaq. soluble polymers which are soluble or dispersible in a solvent which does

not dissolve the 1st layer. The 2nd layer may also contain a photothermal conversion material. Alternatively, the composite layer may be free of photothermal conversion material when thermal imaging is carried out using a thermal printing head.

ST thermal digital lithog printing plate acrylic binder resin  
urethane

IT IR lasers

Lithographic plates

Thermal printing materials

(IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT Polyurethanes, uses

RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)

STN search for 10765,797

(IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT Fluoropolymers, uses  
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)  
(MP 1100; coating for thermal digital lithog. printing plate containing)

IT Phenolic resins, uses  
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)  
(novolak; IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT Acrylic polymers, uses  
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)  
(polyester-; IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT Recording materials  
(thermal; IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT 9002-84-0, MP 1100  
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)  
(MP 1100; coating for thermal digital lithog. printing plate containing)

IT 2390-60-5, Victoria Blue BO 5496-71-9, ADS 1060A 9004-70-0, E 950  
9011-14-7, PMMA 59269-51-1, Poly(vinyl phenol) 134127-48-3, ADS 830A  
199444-11-6, KF 654B-PINA  
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)  
(coating for thermal digital lithog. printing plate containing)

IT 346593-65-5, PC-T 153 346594-06-7, JK 5  
RL: DEV (Device component use); NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)  
(developer for thermal digital lithog. printing plate containing)

IT 634-21-9 212964-63-1  
RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)  
(solubility-inhibitor dye; coating for thermal digital lithog. printing plate containing)

IT 346587-45-9P 346587-46-0P 346587-47-1P 346587-48-2P 346587-50-6P  
346587-52-8P  
RL: DEV (Device component use); PNU (Preparation, unclassified); POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(synthesis of acrylic binder resin free of carboxyl group for thermal digital lithog. printing plate)

L9 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:207911 CAPLUS

DN 134:239036

ED Entered STN: 22 Mar 2001

TI A method for obtaining a heat sensitive element by spray-coating

IN Verschueren, Eric; Vermeersch, Joan

PA Agfa-Gevaert N.V., Belg.

SO Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DT Patent

LA English

STN search for 10765,797

IC ICM B41M005-36  
ICS B41C001-10

CC 42-13 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 74

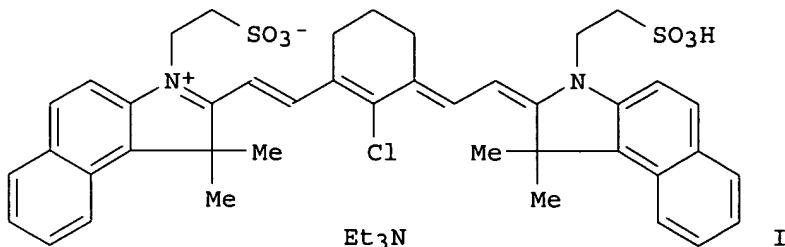
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1084862	A1	20010321	EP 1999-203065	19990915
	EP 1084862	B1	20031112		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001121835	A2	20010508	JP 2000-269944	20000906
	US 6479216	B1	20021112	US 2000-659691	20000911
PRAI	EP 1999-203065	A	19990915		
	US 1999-155770P	P	19990927		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 1084862	ICM	B41M005-36
		ICS	B41C001-10
	EP 1084862	ECLA	B41C001/10A2; B41C001/10N
	US 6479216	ECLA	B41C001/10A2; B41C001/10N

GI



AB The method is carried out by spraying a spray solution on a receiving surface, which is not a grained and anodized aluminum surface, characterized in that the pressure factor (PF) is <200 mN/m, [PF = P/d + (mN/m); PF = Pressure Factor (mN/m), P = Spray Profile (mm), d = distance between spray head and receiving surface (mm), σ = surface tension (mN/m), θ = dynamic contact angle of the receiving surface with H<sub>2</sub>O at 2 s contact time]. Thus, an element was prepared by spray-coating an aqueous solution containing polystyrene latex, I, Glascol E 15 [poly(acrylic acid)], and a fluorosurfactant on a lithog base.

ST indolium diethylethanamine dye heat sensitive element;  
spray coating lithog heat sensitive element

IT Synthetic rubber, uses

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(itaconic acid-Me methacrylate-vinylidene chloride, rubber,  
lithog. base; method for obtaining a heat sensitive  
element by spray-coating)

IT Acrylic rubber

Polyesters, uses

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(lithog. base; method for obtaining a heat

STN search for 10765,797

    sensitive element by spray-coating)  
IT   Lithographic apparatus  
      (method for obtaining a heat sensitive element by  
      spray-coating)  
IT   Coating process  
      (spray; method for obtaining a heat sensitive element by  
      spray-coating)  
IT   Synthetic rubber, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
     (styrene, spray solution containing; method for obtaining a heat  
     sensitive element by spray-coating)  
IT   Recording materials  
     (thermal; method for obtaining a heat sensitive element by  
     spray-coating)  
IT   9003-01-4, Poly(acrylic acid)  
RL: TEM (Technical or engineered material use); USES (Uses)  
     (Glascol E 15, spray solution containing; method for obtaining a heat  
     sensitive element by spray-coating)  
IT   9002-89-5, Polyviol WX 9011-14-7, Poly(methyl methacrylate)  
25038-59-9, PET polymer, uses  
RL: DEV (Device component use); TEM (Technical or engineered material  
use); USES (Uses)  
     (lithog. base; method for obtaining a heat  
     sensitive element by spray-coating)  
IT   27379-75-5, Itaconic acid-methyl methacrylate-vinylidene chloride  
copolymer  
RL: DEV (Device component use); TEM (Technical or engineered material  
use); USES (Uses)  
     (rubber, lithog. base; method for obtaining a heat  
     sensitive element by spray-coating)  
IT   221661-30-9  
RL: TEM (Technical or engineered material use); USES (Uses)  
     (spray solution containing; method for obtaining a heat sensitive  
     element by spray-coating)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Agfa-Gevaert N V; EP 0674230 A 1995 CAPLUS
- (2) Du Pont-Howson Limited; EP 0429234 A 1991 CAPLUS
- (3) Hoechst Ag; DE 4000405 A 1991
- (4) Nishioka, A; US 4626484 A 1986 CAPLUS

L9 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:457208 CAPLUS

DN 127:88088

ED Entered STN: 23 Jul 1997

TI Donor elements and processes for thermal dye transfer by laser

IN Blanchet-Fincher, Graciela Beatriz

PA E. I. Du Pont de Nemours & Co., USA

SO PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM G03C001-498

      ICS G03F001-12

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
     Reproductive Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI WO 9720252	A1	19970605	WO 1996-US18970	19961127

STN search for 10765,797

W: JP  
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
EP 864118 A1 19980916 EP 1996-942074 19961127  
EP 864118 B1 20000816  
R: DE, FR, GB, IT  
JP 2002517163 T2 20020611 JP 1997-520641 19961127  
JP 3421054 B2 20030630  
PRAI US 1995-564546 A 19951129  
US 1996-757717 A 19961126  
WO 1996-US18970 W 19961127

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

-----	-----	-----
WO 9720252	ICM	G03C001-498
	ICS	G03F001-12

WO 9720252	ECLA	B41M005/38A2; B41M005/40C; G03F001/00F3
------------	------	---

AB Donor elements, assemblages, and associated processes are described for use in a laser-induced thermal transfer process, said elements comprising in the order listed (a) at least one flexible ejection layer comprising a first polymer having a decomposition temperature T1 and characteristic glass transition temps. of Tg0 and Tg1 for unplasticized and plasticized polymer samples, resp., wherein the tensile modulus of the flexible ejection layer(s) structure is less than or equal to 2.5 Gigapascals, (b) at least one heating layer, (c) at least one transfer layer comprising (i) a second polymer having a decomposition temperature T2, wherein  $T2 \geq (T1 + 100)$  and (ii) an imageable component, with the proviso in some embodiments that an inflexible support substrate is absent in the donor element at least during the thermal transfer process or in other embodiments that a support is absent in the donor element at least during the thermal transfer process. These donor elements are useful in proofing and lithog. printing applications. Assemblages made with these donor elements are useful for fabrication of photomasks on various photohardenable materials, including flexog. printing plates and photoresists. These photomasks are useful in creating a relief image with a photosensitive element, such as flexog. printing plate or a photoresist.

ST laser thermal dye transfer image donor

IT Paraffin waxes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(chloro; laser-sensitive dye donor elements for thermal transfer process containing)

IT Thermal-transfer printing  
(laser-sensitive dye donor elements for)

IT Acrylic polymers, uses

Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(laser-sensitive dye donor elements for thermal transfer process containing)

IT Printing (impact)  
(laser-sensitive dye donor elements for thermal transfer process for color proofing in)

IT Lithographic plates

Photomasks (lithographic masks)

Photoresists  
(laser-sensitive dye donor elements for thermal transfer process for preparation of)

IT 84-62-8, Diphenyl phthalate 347-46-6, 4-Diazo-N,N-diethylaniline fluoroborate 6427-66-3, p-Azidobenzoic acid 9002-86-2, Poly(vinyl chloride) 9002-86-2D, Poly(vinyl chloride), chlorinated 9011-14-7, Poly(methyl methacrylate) 25038-59-9, Poly(ethylene terephthalate), uses 25750-84-9, Butyl acrylate-ethylene copolymer

STN search for 10765,797

151853-78-0, Elvacite AB 1030  
RL: TEM (Technical or engineered material use); USES (Uses)  
(laser-sensitive dye donor elements for thermal transfer  
process containing)

L9 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1985:496431 CAPLUS  
DN 103:96431  
ED Entered STN: 22 Sep 1985  
TI Highly photosensitive aqueous solvent-developable printing assembly  
IN Herbert, Alan J.  
PA Minnesota Mining and Manufacturing Co., USA  
SO U.S., 9 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
IC ICM G03G013-28  
NCL 430049000  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4521503	A	19850604	US 1984-609286	19840511
	EP 161870	A2	19851121	EP 1985-303104	19850501
	EP 161870	A3	19870923		
	EP 161870	B1	19901219		
	R: BE, DE, FR, GB, IT				
	JP 60244952	A2	19851204	JP 1985-98883	19850509
PRAI	US 1984-609286	A	19840511		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 4521503	ICM	G03G013-28
	NCL	430049000

AB A photoimaging assembly useful for preparation of lithog. plates and printed circuits consists of (1) an electroconductive support, (2) a photoresist layer sensitive to light at 250-450 nm region, and (3) a photoconductive upper layer containing spectrally sensitized Zn oxide sensitive to 370-1200 nm range in H<sub>2</sub>O-soluble or H<sub>2</sub>O-dispersible binder. Thus, an Al support (silicated and primed) was coated with a 8 weight% solids composition containing poly(alkyl orthophthalate) prepolymer, poly(vinylpyrrolidone), pentaerythritol tetraacrylate, cellulose acetate butyrate, polyurethane, 2-(p-methoxystyryl)-4,6-bis(trichloromethyl)-s-triazine, paraformaldehyde-p-diazodiphenylamine copolymer fluoroborate salt, yellow oil soluble dye dispersion, Microlith Blue 4 GK, MeCOEt, DMF, ethylene glycol monomethyl ether, air dried, overcoated with a dispersion containing EtOH, poly(vinylpyrrolidone), Photox 80 IR-125, dried, corona-discharged, IR imagewise exposed, developed with Scott System 200 toner, exposed in Colite arc frame, and developed with H<sub>2</sub>O.  
ST printing plate photoimaging assembly; photoconductor photoresist imaging structure; elec circuit photoconductor photoresist structure  
IT Photoimaging compositions and processes  
(photosensitive assembly containing electroconductive support and photoresist layer and photoconductive upper layer containing spectrally sensitized zinc oxide for)  
IT Electric circuits  
Lithographic plates  
(photosensitive imaging assembly for preparation of, containing

STN search for 10765,797

electroconductive support and photoresist layer and photoconductive upper layer containing spectrally sensitized zinc oxide)  
IT 115-39-9 9003-39-8 9003-53-6 9003-54-7 9004-64-2 9010-76-8  
9011-14-7 54957-10-7  
RL: USES (Uses)  
(photoimaging assembly containing electroconductive support and photoresist layer and photoconductive zinc oxide layer containing, for preparation of lithog. plates and printed circuits)  
IT 1314-13-2, uses and miscellaneous  
RL: USES (Uses)  
(photoimaging assembly containing electroconductive support and photoresist layer and top layer containing, for preparation of lithog. plates and printed circuits)  
IT 101-68-8D, reaction products with diols 147-14-8 4986-89-4 9003-39-8  
42573-57-9 56646-84-5 62428-08-4 67290-46-4 69220-42-4  
RL: USES (Uses)  
(photoimaging assembly containing electroconductive support and photoresist layer containing, and photoconductive top layer, for fabrication of lithog. plates and printed circuits)

L9 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1969:408449 CAPLUS  
DN 71:8449  
ED Entered STN: 12 May 1984  
TI Diazo-sensitized material for engraved intermediate masters  
IN Whitbourne, Richard J.  
PA Keuffel and Esser Co.  
SO Fr., 4 pp.  
CODEN: FRXXAK  
DT Patent  
LA French  
IC G03F  
CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI FR 1511518		19680126		
DE 1572097			DE	
GB 1166724			GB	

PRAI US 19660218

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	-----	-----
FR 1511518	IC	G03F

AB For the exposure of lithographic plates, e.g. for cartography, to 390-415  $\mu$  radiation, transparencies are made from a film carrying a pigmented layer for manual engraving and an overlying light-sensitive thermoplastic resin coating with a conventional diazonium salt-coupler combination. A heat-hardenable polymer is added to the bottom coating to minimize mixing of the 2 coatings. Thus, a 190  $\mu$  poly(ethylene terephthalate) film is given 2 7.6  $\mu$  coatings, the 1st of which contains 17 parts tall oil-modified alkyd resin, heat-hardenable Acryloid AT-50 1.5, Al stearate 21.3, CaCO<sub>3</sub> 52, and citric acid 0.16 parts. The diazo coating is made of cellulose acetate butyrate 40, Acryloid C-10-LV resin 328, p-diazoethylaniline fluoroborate 36, 3,5-resorcyli acid ethanolamide 25, 2-oxohexamethylenimine 20, ZnCl<sub>2</sub> 20, citric acid 20, thiourea 15, stearic acid 17, Iris-R dye (C.I. 60725) 0.3 part. To supplement the absorption of the azo dye image the film may be given a back coating, such as Acryloid B-44 resin with 2,2',4,4'-tetrahydroxybenzophenone.

STN search for 10765,797

ST diazo engraving masters; engraving masters diazo; masters engraving diazo  
IT Diazo process  
(in cartography, light-sensitive intermediate transparencies for  
reproduction)  
IT Maps  
(light-sensitive intermediate transparencies for reproduction of)  
IT Lithography  
(plates, light-sensitive intermediate transparencies for)

=> d his

(FILE 'HOME' ENTERED AT 15:59:04 ON 15 MAR 2005)

FILE 'CAPLUS' ENTERED AT 15:59:38 ON 15 MAR 2005

L1 59363 S LITHOG?  
L2 715 S PLANOGR?  
L3 59785 S L1 OR L2  
L4 2760301 S HEAT? OR INFRARED OR INFRA RED OR IR OR THERMAL PRINthead OR  
L5 6643 S L4 AND L3  
L6 400557 S FLUORO? OR PERFLUORO?  
L7 215 S L6 AND L5  
L8 242856 S DYE  
L9 10 S L7 AND L8

=> s l7 not l9

L10 205 L7 NOT L9

=> d ti

L10 ANSWER 1 OF 205 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Fluoropolymers for integrated optics and photonics

=> s l10 and print?

217723 PRINT?

L11 79 L10 AND PRINT?

=> d all 1-79

L11 ANSWER 1 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:179106 CAPLUS  
ED Entered STN: 03 Mar 2005  
TI Recording materials containing microparticles with excellent antifogging  
properties and wear resistance and recording apparatus using them  
IN Katano, Yasuo  
PA Ricoh Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 18 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N001-14  
      ICS B41M005-00; B41M005-26  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005053185	A2	20050303	JP 2003-288951	20030807
PRAI JP 2003-288951		20030807		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005053185	ICM	B41N001-14
	ICS	B41M005-00; B41M005-26
JP 2005053185	FTERM	2H086/AA13; 2H086/AA41; 2H086/AA50; 2H111/HA12; 2H111/HA14; 2H111/HA31; 2H114/AA04; 2H114/AA22; 2H114/AA27; 2H114/DA75; 2H114/EA03; 2H114/EA04; 2H114/EA08; 2H114/FA06; 2H114/GA01; 2H114/GA38
AB	The materials, useful for offset printing plates, have recording layers containing parts showing decrease in contact angle with liqs. when heated or cooled in contact with the liqs. and recovery of contact angle when heated or cooled in the absence of the liqs., wherein the recording layers or intermediate layers (between the recording layers and substrates) contain microparticles satisfying that surface area of clusters of them is 2-4 times that of them.	
ST	offset printing plate microparticle wear resistance; antifogging plate microparticle cluster surface area; pigment light absorber recording material reuse	
IT	<b>Fluoropolymers</b> RL: TEM (Technical or engineered material use); USES (Uses) (acrylic, recording layer; offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Acrylic polymers</b> RL: TEM (Technical or engineered material use); USES (Uses) (carbon black-containing microparticle, recording layer containing; offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Polyesters</b> RL: TEM (Technical or engineered material use); USES (Uses) (film, substrate; offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Acrylic polymers</b> RL: TEM (Technical or engineered material use); USES (Uses) (fluorine-containing, recording layer; offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Polyurethanes</b> RL: TEM (Technical or engineered material use); USES (Uses) (intermediate layer; offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Pigments, nonbiological</b> (light absorber, recording layer containing; offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Carbon black</b> RL: TEM (Technical or engineered material use); USES (Uses) (light absorber, recording layer containing; offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Microparticles</b> (offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Lithographic apparatus</b> (offset; offset printing plates containing microparticles with good antifogging properties and wear resistance)	
IT	<b>Polysiloxanes</b> RL: TEM (Technical or engineered material use); USES (Uses) (spherical or semi-spherical microparticle, recording layer containing; offset printing plates containing microparticles with good	

STN search for 10765,797

antifogging properties and wear resistance)  
IT **Lithographic plates**  
(waterless, offset; offset printing plates containing  
microparticles with good antifogging properties and wear resistance)  
IT 7631-86-9, Silica  
RL: TEM (Technical or engineered material use); USES (Uses)  
(microparticle, recording or intermediate layer containing; offset  
printing plates containing microparticles with good antifogging  
properties and wear resistance)

L11 ANSWER 2 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:77893 CAPLUS  
DN 142:186574  
ED Entered STN: 28 Jan 2005  
TI Phase change ink imaging component having elastomer outer layer  
IN Pan, David H.; Badesha, Santokh S.; Yuan, Xiaoying; Stanton, Donald S.;  
Finsterwalder, Robert N.; Yeznach, Anthony; Snyder, Trevor J.  
PA Xerox Corporation, USA  
SO U.S. Pat. Appl. Publ., 14 pp., Division of U.S. Ser. No. 177,911.  
CODEN: USXXCO  
DT Patent  
LA English  
IC ICM B41J002-01  
NCL 347103000  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 35, 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005018027	A1	20050127	US 2004-920490	20040817
PRAI US 1998-177911	A3	19981023		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2005018027	ICM	B41J002-01
	NCL	347103000
US 2005018027	ECLA	G06T015/00A

AB An offset printing apparatus having a coated imaging member for use  
with phase-change inks, has a substrate, an optional intermediate layer,  
and there over an outer coating having an elastomer of monomers selected  
from the group consisting of halogenated monomers, polyorganosiloxane  
monomers, and mixts. thereof, and an optional heating member  
associated with the offset printing apparatus  
ST phase change ink imaging component elastomer offset printing app  
IT **Fluoro rubber**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(bromotrifluorobutene-hexafluoropropene-tetrafluoroethylene-vinylidene  
fluoride, reaction product; phase change ink imaging component having  
elastomer outer layer)  
IT **Lithographic apparatus**  
(offset; phase change ink imaging component having elastomer outer  
layer)  
IT **Ceramers**  
Coating materials  
(phase change ink imaging component having elastomer outer layer)  
IT **Fluoro rubber**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(phase change ink imaging component having elastomer outer layer)  
IT **Polysiloxanes, uses**

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)  
(polyamine-, fluorine-containing; phase change ink imaging component having  
elastomer outer layer)

IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyamine-polysiloxane-; phase change ink imaging component having  
elastomer outer layer)

IT Polyamines  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polysiloxane-, fluorine-containing; phase change ink imaging component  
having elastomer outer layer)

IT 78-10-4DP, TEOS, polymer with trimethoxysilane modified  
fluoroelastomer 7425-80-1DP, Titanium isobutoxide, polymer with  
trimethoxysilane modified fluoroelastomer 115254-29-0DP, PS  
545, polymer with trimethoxysilane modified fluoroelastomer  
833480-14-1P 833480-15-2P 833480-16-3P 833480-17-4P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
(phase change ink imaging component having elastomer outer layer)

IT 1760-24-3, A0700 34937-00-3, S-1590  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(phase change ink imaging component having elastomer outer layer)

L11 ANSWER 3 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:57039 CAPLUS

DN 142:144113

ED Entered STN: 21 Jan 2005

TI Heat-sensitive lithographic plates showing good  
on-machine developability and scratch resistance to form high-quality  
images

IN Yamazaki, Sumiaki; Kodama, Kunihiko

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 56 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-14

ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

Section cross-reference(s): 35, 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005014514	A2	20050120	JP 2003-185213	20030627
PRAI JP 2003-185213		20030627		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005014514	ICM	B41N001-14
	ICS	G03F007-00; G03F007-004
JP 2005014514	FTERM	2H025/AA01; 2H025/AA04; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/BC13; 2H025/BC42; 2H025/BD43; 2H025/BE07; 2H025/BH03; 2H025/BJ03; 2H025/CA48; 2H025/CB54; 2H025/CC11; 2H025/DA36; 2H025/FA10; 2H096/AA06; 2H096/BA05; 2H096/CA03; 2H096/EA04; 2H096/EA23; 2H114/AA04; 2H114/AA24; 2H114/BA01; 2H114/BA10; 2H114/DA35; 2H114/DA51; 2H114/DA54; 2H114/DA74; 2H114/EA02

AB The plates have, on hydrophilic supports, heat-sensitive layers

containing (A) acid- or radically polymerizable compds., (B) photothermal converters, and (C) thermally acid/radical-generating compds. chosen from (c1) ArCOCR6R7S+Y1Y2X- (Ar = aryl, heteroarom.; R6 = H, CN, alkyl, aryl; R7 = alkyl, aryl; Y1, Y2 = alkyl, aryl, aralkyl, heteroarom.; X- = non-nucleophilic anion), (c2) R3(R2C:CR1)nCOCR4R5S+Y3Y4X- [R1-R3 = H, alkyl(oxy), alkenyl, aryl; R4, R5 = H, CN, alkyl(oxy), aryl; Y3, Y4 = alkyl, aryl, aralkyl, heteroarom.; n = 1-4; X- = same as above], (c3) R3CO(R1C:CR2)nCR4R5S+Y3Y4X- (R1-R5, Y3, Y4, X-, n = same as above), and/or (c4) WmZS+Y5Y6X- [Y5, Y6 = (oxo)alkyl, aryl, (oxo)aralkyl, heterocyclic; Z = single bond, organic group; W = CONRa-containing group, SO2NRa-containing group; Ra = H, alkyl; m = 1-3; X- = same as above]. The layers are removable with printing inks and/or dampening water. Alternatively, the plates contain A-including microcapsules in heat-sensitive layers and c1, c2, c3, and/or c4 in the layers or in neighboring layers. The plates are useful for IR scanning exposure.

ST heat sensitive lithog plate on machine developability; acid radically polymerizable lithog plate photothermal converter; isobutyrophenone sulfonium fluorobutanesulfonate acid radical generator; microcapsule heat sensitive lithog plate IR scanning

IT Polyoxalkylenes, reactions

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
(acrylate-terminated, isocyanurate-containing; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT Epoxy resins, reactions

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
(heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT Lithographic plates

(presensitized; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 100844-79-9, NK Ester M 315

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
(NK Ester M 315; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 470482-89-4P 524959-11-3P 524959-28-2P 610301-07-0P 617692-19-0P

RL: CAT (Catalyst use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acid/radical generators; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 610301-09-2 617692-26-9 676502-11-7 676502-29-7 823816-98-4

823816-99-5 823817-00-1

RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)  
(acid/radical generators; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 25068-38-6, Epikote 1004 52411-04-8 60506-81-2, Dipentaerythritol pentaacrylate

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

STN search for 10765,797

(heat-sensitive lithog. plates showing good  
on-machine developability and scratch resistance to form high-quality  
images)

IT 1440-60-4P, N-Chloroacetyl piperidine 39158-85-5P, Isobutyrophenone  
trimethylsilyl enol ether 80239-27-6P 86370-82-3P 617692-18-9P  
681215-86-1P 823838-57-9P, 4-(tert-Butylacetyl)toluene trimethylsilyl  
enol ether  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(in preparation of acid/radical generators; heat-sensitive  
lithog. plates showing good on-machine developability and  
scratch resistance to form high-quality images)

IT 78-59-1, Isophorone 108-88-3, Toluene, reactions 110-01-0,  
Tetrahydrothiophene 110-89-4, Piperidine, reactions 141-79-7, Mesityl  
oxide 611-70-1, Isobutyrophenone 1600-44-8, Tetramethylene sulfoxide  
2168-93-6, Dibutyl sulfoxide 7065-46-5, tert-Butylacetyl chloride  
29420-49-3, Potassium nonafluorobutanesulfonate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in preparation of acid/radical generators; heat-sensitive  
lithog. plates showing good on-machine developability and  
scratch resistance to form high-quality images)

IT 25854-16-4D, Xylylene diisocyanate, adducts 37337-02-3, Takenate D 110N  
RL: TEM (Technical or engineered material use); USES (Uses)  
(microcapsule walls; heat-sensitive lithog. plates  
showing good on-machine developability and scratch resistance to form  
high-quality images)

IT 183745-11-1  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)  
(photothermal converters; heat-sensitive lithog.  
plates showing good on-machine developability and scratch resistance to  
form high-quality images)

L11 ANSWER 4 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:50962 CAPLUS  
DN 142:144093  
ED Entered STN: 20 Jan 2005  
TI Original plates for direct laser platemaking without development and  
offset printing plates therefrom  
IN Suzuki, Yuko; Sanada, Takayuki; Takano, Koji; Terauchi, Tomoya; Koide,  
Tetsuhiro  
PA Mitsui Chemicals Inc., Japan  
SO Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N001-14  
ICS G03F007-00; G03F007-004  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI JP 2005014523	A2	20050120	JP 2003-185330	20030627
PRAI JP 2003-185330		20030627		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	-----	-----
JP 2005014523	ICM	B41N001-14

JP 2005014523 ICS G03F007-00; G03F007-004  
FTERM 2H025/AA01; 2H025/AA02; 2H025/AA12; 2H025/AB03;  
2H025/AC08; 2H025/AD01; 2H025/BH03; 2H025/BJ03;  
2H025/CC11; 2H025/CC17; 2H025/DA02; 2H025/DA03;  
2H025/FA10; 2H096/AA06; 2H096/BA01; 2H096/BA20;  
2H096/EA04; 2H096/EA23; 2H114/AA04; 2H114/AA24;  
2H114/BA01; 2H114/BA10; 2H114/DA23; 2H114/DA52;  
2H114/DA53; 2H114/DA59; 2H114/DA60; 2H114/EA01

AB The original plates have hydrophilic photosensitive resin layers with surface F concentration  $\geq 0.5$  atomic% (measured by XPS) on supports directly or via other layers. The resin layers may comprise hydrophilic polymers, emulsion polymers, light absorbers showing absorption at 700-1200 nm, curing agents, hydrophilic additives, and optionally perfluoroalkyl group-containing additives and show hydrophilicity at least on their surfaces. Also claimed are offset printing plates manufactured by exposing the resin layers of the original plates to lasers with wavelength 700-1200 nm to have high-resolution images (e.g., by computer-to-plate lithog.).

ST laser direct platemaking offset printing plate; development free presensitized lithog plate offset; offset lithog plate surface perfluoroalkylamine oxide

IT Aminoplasts  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Perfluoro compounds  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(carboxylic acids, salts; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsions; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Lithographic plates  
(offset; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Carboxylic acids, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(perfluoro, salts; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Amine oxides  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(perfluoroalkyl; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Lithographic plates  
(presensitized; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 574-93-6D, Phthalocyanine, derivs.  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dyes, light absorbers; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 140229-11-4, Olester UD 500 180983-82-8, Superflex 750  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsions; original plates for direct laser platemaking without development and offset printing plates therefrom)

STN search for 10765,797

IT 11067-82-6, Neogen R 36290-04-7, Demol N  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrophilic additives; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 3599-32-4, IR 125  
RL: TEM (Technical or engineered material use); USES (Uses)  
(light absorbers; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 731854-08-3P, Acrylamide-Cymel 350-2-hydroxyethyl acrylate copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 82030-84-0, Surflon S 141 84932-01-4, Surflon S 111  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(original plates for direct laser platemaking without development and offset printing plates therefrom)

L11 ANSWER 5 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:1035991 CAPLUS

DN 142:30046

ED Entered STN: 03 Dec 2004

TI Positive-working lithographic printing plate  
precursors containing specific phenol resin

IN Watanabe, Kotaro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

Section cross-reference(s): 35

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004341405	A2	20041202V	JP 2003-140275	20030519
PRAI JP 2003-140275		20030519		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004341405	ICM	G03F007-004
	ICS	G03F007-00
JP 2004341405	FTERM	2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB29; 2H025/CB41; 2H025/CC11; 2H025/FA17; 2H096/AA06; 2H096/BA11; 2H096/EA04; 2H096/EA23; 2H096/GA08

AB The title precursor has an alkali-developable IR-sensitive  
imaging layer containing a phenol resin and a light-to-heat  
converting agent on a hydrophilic support, wherein the phenolic resin has  
hydroxy groups modified to ether groups. The precursor is for  
direct-imaging and shows large dissoln. discrimination and good  
post-exposure delay property.

ST pos lithog printing plate precursor

IT Lithographic plates  
(lithog. printing plate precursors)

STN search for 10765,797

IT Phenolic resins, preparation  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(novolak; lithog. printing plate precursors)

IT 4282-42-2DP, Nonyl iodide, reaction product with novolak resin  
27029-76-1DP, cyclohexylated 28934-28-3DP, Phenol-p-cresol-formaldehyde copolymer, pentylated 28935-25-3DP, Phenol-m-cresol-formaldehyde copolymer, reaction product with alkyl iodide 35464-74-5DP, Phenol-m-cresol-p-cresol-formaldehyde copolymer, 6-(perfluorobutyl)hexylated 35464-74-5DP, Phenol-m-cresol-p-cresol-formaldehyde copolymer, noylenylated 35464-74-5DP, Phenol-m-cresol-p-cresol-formaldehyde copolymer, octadecylated 35464-74-5DP, Phenol-m-cresol-p-cresol-formaldehyde copolymer, reaction product with alkyl iodide 56700-20-0DP, Phenol-2,5-xilenol-formaldehyde copolymer, isobutylated 56725-73-6DP, Phenol-2,3-xilenol-formaldehyde copolymer, phenylated  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(lithog. printing plate precursors)

L11 ANSWER 6 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:782087 CAPLUS

DN 141:304310

ED Entered STN: 24 Sep 2004

TI IR-sensitive positive lithographic printing  
plate precursors having specific surfactant in backcoating layer

IN Fujita, Kazuo

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-09

ICS B41N001-14; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004264661	A2	20040924 ✓	JP 2003-55667	20030303
PRAI JP 2003-55667		20030303		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004264661	ICM	G03F007-09
	ICS	B41N001-14; G03F007-00
JP 2004264661	FTERM	2H025/AB03; 2H025/DA36; 2H025/DA40; 2H096/AA06; 2H096/CA03; 2H096/CA05; 2H114/AA04; 2H114/AA29; 2H114/DA08; 2H114/DA15; 2H114/DA41; 2H114/EA02; 2H114/GA09

AB The title printing plate precursor has a light-sensitive layer on a surface-anodized aluminum support and a backcoating layer on the back of the support, wherein the backcoating layer is made of metal oxides prepared by hydrolysis/condensation of: organometallic compds. or inorg. metal compds.; an organic polymer; and a polymer surfactant having fluoro aliphatic side chains, which are prepared by telomerization or oligomerization. The precursor provides printing plates, which requires decreased amount of developer replenishment and generates little insol. materials in a developer tank.

ST lithog printing plate precursor surfactant backcoating

STN search for 10765,797

layer  
IT Surfactants  
(polymer; light-sensitive lithog. printing plate precursors)  
IT Lithographic plates  
(precursors; light-sensitive lithog. printing plate precursors)  
IT 79-10-7DP, Acrylic acid, reaction product with fluoro polymer  
79-41-4DP, Methacrylic acid, reaction product with fluoro polymer 65530-60-1DP, reaction product with acrylic acid 71371-52-3DP, reaction product with acrylic acid 761418-87-5P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(light-sensitive lithog. printing plate precursors)  
IT 206281-34-7, Megafac F 470 299190-83-3, Megafac F 472 402944-02-9, Megafac F 473 402944-04-1, Megafac F 475 402944-08-5, Megafac F 476  
RL: TEM (Technical or engineered material use); USES (Uses)  
(light-sensitive lithog. printing plate precursors)  
IT 1344-28-1P, Alumina, preparation  
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
(support surface; light-sensitive lithog. printing plate precursors)  
IT 7429-90-5, Aluminum, uses  
RL: DEV (Device component use); USES (Uses)  
(support; light-sensitive lithog. printing plate precursors)  
IT 181429-38-9, Megafac F 178  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surfactant; light-sensitive lithog. printing plate precursors)

L11 ANSWER 7 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:779254 CAPLUS  
DN 141:285848  
ED Entered STN: 24 Sep 2004  
TI IR-sensitive positive lithographic printing ✓  
plate precursors having specific surfactant in backcoating layer ✓  
IN Fujita, Kazuo  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 43 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-09  
ICS B41N001-14; G03F007-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004264662	A2	20040924	JP 2003-55668	20030303
PRAI JP 2003-55668		20030303		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004264662	ICM G03F007-09	
	ICS B41N001-14; G03F007-00	
JP 2004264662	FTERM 2H025/AA00; 2H025/AB03; 2H025/DA36; 2H025/DA40;	

2H096/AA06; 2H096/CA03; 2H096/CA05; 2H114/AA04;  
2H114/AA29; 2H114/DA08; 2H114/DA15; 2H114/DA41;  
2H114/DA47; 2H114/DA52; 2H114/DA58; 2H114/EA02;  
2H114/FA02; 2H114/GA09

AB The title printing plate precursor has a light-sensitive layer on a surface-anodized aluminum support and a backcoating layer on the back of the support, wherein the backcoating layer is made of: metal oxides prepared by hydrolysis/condensation of organometallic compds. or inorg. metal compds.; an organic polymer; and a polymer surfactant having fluoro aliphatic side chains. The polymer surfactant is prepared by copolymer. of C=C(R1){-CO-X-(CH<sub>2</sub>)<sub>m</sub>-N(R2)-SO<sub>2</sub>-(CF<sub>2</sub>)<sub>n</sub>-F} (X = -O-, -NR<sub>3</sub>-; R<sub>3</sub> = H, C<sub>1</sub>-12 alkyl, C<sub>3</sub>-12 cycloalkyl, etc.; R<sub>1</sub> = H, -CH<sub>3</sub>; R<sub>2</sub> = H, C<sub>1</sub>-12 alkyl, C<sub>3</sub>-12 cycloalkyl, C<sub>6</sub>-12 aryl, C<sub>7</sub>-24 aralkyl; m = integer 1-10; n = integer 1-4) and ethylenic unsatd. monomers having poly(oxyalkylene) groups. The precursor provides printing plates, which requires decreased amount of developer replenishment and generates little insol. materials in a developer tank.

ST lithog printing plate precursor surfactant backcoating layer

IT Surfactants

(polymer; light-sensitive lithog. printing plate precursors)

IT Lithographic plates

(precursors; light-sensitive lithog. printing plate precursors)

IT 96-49-1, Ethylene carbonate 107-10-8, Propylamine, reactions 375-72-4, Perfluorobutanesulfonyl fluoride 814-68-6, Acrylic acid chloride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(light-sensitive lithog. printing plate precursors)

IT 136215-16-2P 499776-70-4P 760195-44-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(light-sensitive lithog. printing plate precursors)

IT 672952-87-3P 760195-46-8P 760195-47-9P 760195-48-0P 760947-95-3P  
760947-96-4P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

IT 1344-28-1P, Alumina, preparation  
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
(support surface; light-sensitive lithog. printing plate precursors)

IT 7429-90-5, Aluminum, uses  
RL: DEV (Device component use); USES (Uses)  
(support; light-sensitive lithog. printing plate precursors)

L11 ANSWER 8 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:700265 CAPLUS

DN 141:215688

ED Entered STN: 27 Aug 2004

TI A positive type photosensitive image-forming material for an infrared laser and offset printing

IN Miyake, Hideo; Kawauchi, Ikuo

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 53 pp.

CODEN: EPXXDW

DT Patent

LA English

STN search for 10765,797

IC ICM B41C001-10  
ICS B41M005-36

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35, 38

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1449655	A1	20040825	EP 2004-10452	19981016
	R: DE, GB				
	JP 11119418	A2	19990430	JP 1997-285754	19971017
	EP 909657	A2	19990421	EP 1998-119634	19981016
	EP 909657	A3	19990519		
	EP 909657	B1	20030618		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EP 1258369	A2	20021120	EP 2002-15513	19981016
	EP 1258369	A3	20021204		
	R: DE, GB				
	JP 11218914	A2	19990810	JP 1998-322334	19981112
	JP 2002196491	A2	20020712	JP 2001-376180	19981112
	JP 2002251003	A2	20020906	JP 2001-398410	19981112
	US 6340551	B1	20020122	US 1999-421535	19991020
	US 2002081522	A1	20020627	US 2001-993634	20011127
	JP 2004145370	A2	20040520	JP 2004-45309	20040220
	JP 2004145371	A2	20040520	JP 2004-45310	20040220
	JP 2004171029	A2	20040617	JP 2004-45308	20040220
	JP 2004157573	A2	20040603	JP 2004-57884	20040302
	JP 2004192011	A2	20040708	JP 2004-57885	20040302
	JP 2004192012	A2	20040708	JP 2004-57886	20040302
PRAI	JP 1997-285754	A	19971017		
	JP 1997-313778	A	19971114		
	EP 1998-119634	A3	19981016		
	EP 2002-15513	A3	19981016		
	US 1998-173719	A3	19981016		
	JP 1998-322334	A3	19981112		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 1449655	ICM	B41C001-10
		ICS	B41M005-36
	EP 1449655	ECLA	B41C001/10A; B41M005/36S
	EP 909657	ECLA	B41C001/10A; B41M005/36S; G03F007/004D
	EP 1258369	ECLA	B41C001/10A
	US 6340551	ECLA	B41C001/10A; B41M005/36S; G03F007/004D
	US 2002081522	ECLA	B41C001/10A; B41M005/36S; G03F007/004D
	JP 2004145370	FTERM	2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB29; 2H025/CB41; 2H025/CB52; 2H025/CC20; 2H025/EA04; 2H025/EA10; 2H025/FA03; 2H025/FA17; 2H096/AA07; 2H096/BA16; 2H096/BA20; 2H096/CA12; 2H096/CA20; 2H096/EA04; 2H096/GA08; 2H096/JA02; 2H096/KA02
	JP 2004145371	FTERM	2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB41; 2H025/CB52; 2H025/CC20; 2H025/DA13; 2H025/FA03; 2H025/FA17; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/CA20; 2H096/EA04; 2H096/GA08; 2H096/JA04
	JP 2004171029	FTERM	2H025/AA01; 2H025/AA04; 2H025/AA06; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/BG00; 2H025/CB14; 2H025/CB29; 2H025/CB41; 2H025/CB45;

2H025/CC11; 2H025/FA17; 2H096/AA06; 2H096/BA09;  
2H096/CA05; 2H096/EA04; 2H096/GA08; 4F100/AK02B;  
4F100/AK03B; 4F100/AK12B; 4F100/AK21B; 4F100/AK24B;  
4F100/AK25B; 4F100/AK26B; 4F100/AK27B; 4F100/AK34C;  
4F100/AK62B; 4F100/AK66B; 4F100/AL01B; 4F100/AT00A;  
4F100/BA03; 4F100/BA07; 4F100/BA10A; 4F100/BA10C;  
4F100/EH46; 4F100/GB41; 4F100/JK01; 4F100/YY00B  
JP 2004157573 FTERM 2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08;  
2H025/AD03; 2H025/CB29; 2H025/CB52; 2H025/CC20;  
2H025/DA36; 2H025/FA03; 2H025/FA17; 2H096/AA08;  
2H096/BA16; 2H096/BA20; 2H096/CA05; 2H096/EA04;  
2H096/GA08  
JP 2004192011 FTERM 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03;  
2H025/CB28; 2H025/CB45; 2H025/CB52; 2H025/CC03;  
2H025/CC20; 2H025/DA36; 2H025/EA04; 2H025/FA03;  
2H025/FA17; 2H096/AA07; 2H096/AA08; 2H096/BA16;  
2H096/BA20; 2H096/CA05; 2H096/CA12; 2H096/EA04;  
2H096/GA08  
JP 2004192012 FTERM 2H025/AA04; 2H025/AA12; 2H025/AB03; 2H025/AC08;  
2H025/AD03; 2H025/CB14; 2H025/CB29; 2H025/CB45;  
2H025/CC04; 2H025/CC11; 2H025/DA13; 2H025/FA10;  
2H025/FA17

AB A pos. image-forming material for use with IR laser comprises :  
a substrate; a layer(A) containing not less than 50% of a copolymer which  
contains, as a copolymer component, not less than 10% by mol of at least  
one of monomer having in the mol. a sulfonamide group wherein at least one  
hydrogen atom is linked to a nitrogen atom, and a monomer:  
-C(=O)-NH-S(=O)(=O)-, and a monomer selected from acrylamide,  
methacrylamide, acrylate, methacrylate and hydroxystyrene, which resp.  
have a phenolic hydroxyl {group;} and a layer (B) containing not less than 50%  
of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group.

The

layer (A) and the layer (B) are laminated on the substrate in that order.  
At least the layer (B) contains a compound which generates heat  
upon absorbing light. An image forming material comprises following  
compound: R1-SO<sub>2</sub>-SO<sub>2</sub>-R2 and R1-SO<sub>2</sub>-R2 (R1,2 = alkyl, alkenyl or aryl group).  
The photosensitive image-forming material and pos. photosensitive composition  
have excellent stability of sensitivity with regard to concentration of a  
developing solution, and can be used as an offset printing master.

ST pos photosensitive image material IR laser compn offset  
printing

IT Surfactants

(fluorosurfactants; pos. type photosensitive image-forming  
material for use with IR laser for)

IT Lithographic plates

(offset; pos. type photosensitive image-forming material for use with  
IR laser for)

IT 85568-56-5, Megafac F-177

RL: TEM (Technical or engineered material use); USES (Uses)  
(pos. type photosensitive image-forming material for use with  
IR laser for)

IT 124996-93-6P, Acrylonitrile-N-(p-Aminosulfonylphenyl)methacrylamide-Ethyl  
methacrylate copolymer 203179-80-0P, N-(p-Hydroxyphenyl)methacrylamide-  
Ethyl methacrylate copolymer 223561-59-9P, N-(p-  
Aminosulfonylphenyl)methacrylamide-Ethyl methacrylate copolymer  
223561-61-3P, Acrylonitrile-N-(p-Aminosulfonylphenyl)acrylamide-methyl  
methacrylate copolymer 504413-05-2P, Acrylonitrile-methyl  
methacrylate-N-(p-toluenesulfonyl)methacrylamide copolymer  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)

STN search for 10765,797

(pos. type photosensitive image-forming material for use with  
IR laser for offset printing plate containing)

L11 ANSWER 9 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:473046 CAPLUS  
DN 141:31117  
ED Entered STN: 11 Jun 2004  
TI Phase change ink imaging component with nano-size filler  
IN Pan, David H.; Badesha, Santokh S.  
PA Xerox Corporation, USA  
SO U.S. Pat. Appl. Publ., 12 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
IC ICM B41J002-01  
NCL 347103000  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004109055	A1	20040610	US 2002-316234 ✓	20021209 ✓
	EP 1428673	A1	20040616	EP 2003-28171	20031208
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2004188978	A2	20040708	JP 2003-408386	20031208
	BR 2003005949	A	20040831	BR 2003-5949	20031209
PRAI	US 2002-316234	A	20021209		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004109055	ICM	B41J002-01
	NCL	347103000
EP 1428673	ECLA	C09D011/00C4; C09D011/10B
JP 2004188978	FTERM	2H084/AA25; 2H084/AA38; 2H084/AE05; 2H084/BB02; 2H084/BB16; 2H114/AA01; 2H114/AA09; 2H114/AA28; 2H114/BA10; 2H114/DA03; 2H114/DA04; 2H114/DA08; 2H114/DA15; 2H114/DA49; 2H114/DA62; 2H114/DA75; 2H114/FA06; 2H114/GA34

AB The present invention provides an offset printing apparatus for transferring a phase change ink onto a print medium comprising:  
(a) a phase change ink component for applying a phase change ink in a phase change ink image; (b) an imaging member for accepting the phase change ink image from the phase change ink component, and transferring the phase change ink image from the imaging member to the print medium, the imaging member comprising: (i) an imaging substrate, and thereover (ii) an outer coating comprising a nanosize filler having an average particle size of from about 1 to about 250 nm. Thus, an Al drum was first sanded with 400 grit sand paper, and cleaned with MEK. The cleaned drum was then air dried, followed by compressed air treatment to remove residual dust particles. The cleaned drum was then coated uniformly with .apprx.3 g of a primer solution of Chemlok 5150 primer (aminosilane) solution (9:1 dilution with methanol), and allowed for hydrolysis. The primed drum was then air dried and allowed for further primer hydrolysis for at least 30 min. The primed drum was usually coated within 48 h of primer application. A fluoroelastomer outer coating solution was prepared by mixing a fluoroelastomer with a curative, curative base metal oxides and nanosize fillers and coated on the drum. After the coating was air dried overnight, the coated drum was oven dried at 120°F for

.apprx.4 h, followed by step heat curing at 200°F for 2 h, 300°F for 2 h, 350°F for 2 h, 400°F for 2 h and 450°F for 6 h. The final elastomer thickness was from about 15 to about 150 µm. The cured drum was then cooled to room temperature and ready for print testing with good result.

ST transfer printing phase change ink image device nanosize filler; fluoroelastomer coating nanosize filler phase change ink image drum

IT Fluoro rubber  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(hexafluoropropene-tetrafluoroethylene-vinylidene fluoride, Viton GH, Viton B 50 for coating; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Inks  
(hot-melt; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Metals, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(nanosize fillers; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Fillers  
(nanosized; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Lithographic apparatus  
(offset; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Nanoparticles  
Sol-gel processing  
(phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Carbon black, uses  
Oxides (inorganic), uses  
Polyimides, uses  
Polythiophenylenes  
RL: MOA (Modifier or additive use); USES (Uses)  
(phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Polyketones  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyether-; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Polyethers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyketone-; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 7631-86-9, Aerosil 130, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(colloidal, nanosize filler; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 7429-90-5, Aluminum, uses  
RL: DEV (Device component use); USES (Uses)  
(drum; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 13463-67-7, Titania, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(nanosize filler; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 1308-38-9, Chromium oxide, uses 1312-43-2, Indium oxide 1313-99-1, Nickel oxide, uses 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium

STN search for 10765,797

oxide, uses 1314-60-9, Antimony pentoxide 1332-29-2, Tin oxide 1332-37-2, Iron oxide, uses 1344-28-1, Aluminum oxide, uses 1344-70-3, Copper oxide  
RL: MOA (Modifier or additive use); USES (Uses)  
(nanosize fillers; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 1305-62-0, Calcium hydroxide ( $\text{Ca}(\text{OH})_2$ ), uses 1309-48-4, Magnesium oxide ( $\text{MgO}$ ), uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(phase change ink imaging device having fluoro rubber coating containing nano-size filler)

L11 ANSWER 10 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:461290 CAPLUS  
DN 141:251326  
ED Entered STN: 08 Jun 2004  
TI Sol-gel preparation of photosensitive fluorinated inorganic-organic thin films for printing plates ✓  
AU Satoh, K.; Nakazumi, H.  
CS Department of Applied Materials Science, Graduate School of Engineering, Osaka Prefecture University, Sakai, Osaka, 599-8531, Japan  
SO Thin Solid Films (2004), 460(1-2), 217-221  
CODEN: THSFAP; ISSN: 0040-6090  
PB Elsevier B.V.  
DT Journal  
LA English  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
AB A photosensitive inorg.-organic thin film is prepared by a sol-gel method from nylon, N,N'-methylenebisacrylamide, tetraethoxysilane, 3-methacryloxypropyltrimethoxysilane, and 2-perfluoroctylethyltrimethoxysilane (17F) for use as a printing plate medium. A single-layered coating film containing fluorine formed on an aluminum substrate exhibits much higher rubbing durability than existing silicone-based plates, and a low surface free energy of 16.5 mJ m<sup>-2</sup> despite the low 17F content. The surface of the thin film was characterized by contact angle measurements, XPS, Fourier transform IR spectroscopy, and SEM. These analyses reveal that the mechanism of ink repellency on the printing plate was the migration of the fluorinated component to the surface of the thin film.  
ST planog printing plate photosensitive fluorinated inorg org film;  
sol gel photosensitive fluorinated inorg org film printing plate  
IT Lithographic plates  
(offset; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)  
IT Polymerization  
(photopolymn.; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)  
IT Printing plates  
(planog.; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)  
IT Ceramers  
Contact angle  
Hardness (mechanical)  
IR spectra  
Sol-gel processing  
Surface free energy  
X-ray photoelectron spectra  
(sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)

STN search for 10765,797

IT 101947-16-4, 2-Perfluoroctylethyltriethoxysilane  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(17F; sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 55398-96-4, CM 8000  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(CM-8000; sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 64-17-5, Ethanol, uses 67-63-0, 2-Propanol, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(developer; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 177080-76-1 736154-65-7 736154-67-9  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 3524-62-7, Benzoin methyl ether  
RL: CAT (Catalyst use); USES (Uses)  
(sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 2530-85-0, 3-Methacryloxypropyltrimethoxysilane  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 78-10-4, Tetraethoxysilane 110-26-9, N,N'-Methylenebisacrylamide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 7429-90-5, Aluminum, processes  
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)  
(substrate; printing plate medium from sol-gel derived photosensitive fluorinated inorg.-organic thin films)

IT 7440-21-3, Silicon, processes  
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)  
(substrate; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; Fluoropolymers 1972
- (2) Anon; Shin Kankousei Jyushi 1981, P3
- (3) Curtin, J; US 3511178 1970 CAPLUS
- (4) Ershad-Langroudi, A; J Appl Polym Sci 1997, V65, P2387 CAPLUS
- (5) Haraguchi, K; Chem Lett 1997, P51 CAPLUS
- (6) Novak, B; Adv Mater 1993, V5, P422 CAPLUS
- (7) Sanchez, C; J Sol-Gel Sci Technol 2000, V19, P31 CAPLUS
- (8) Sanchez, C; New J Chem 1994, V18, P1007 CAPLUS
- (9) Satoh, K; J Sol-Gel Sci Technol 2003, V27, P327 CAPLUS
- (10) Satoh, K; Sen'i Gakkaishi 2001, V57, P7
- (11) Satoh, K; Trans MRS Jpn 2001, V26, P925 CAPLUS
- (12) Shimokawa, Y; J Adhes Soc Jpn 1983, V19, P13
- (13) Shimokawa, Y; J Appl Photogr Eng 1980, V6, P65 CAPLUS
- (14) Yamaoka, T; Hyomen (Surface) 1979, V17, P153 CAPLUS

STN search for 10765,797

(15) Yoneda, T; Thin Solid Films 1999, V351, P279 CAPLUS

L11 ANSWER 11 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:412042 CAPLUS  
DN 140:414977  
ED Entered STN: 21 May 2004  
TI IR-sensitive positive-working polymer compositions for recording  
layers of presensitized lithographic plates suitable for  
IR direct platemaking  
IN Aogo, Toshiaki; Endo, Akihiro  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 29 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-004  
ICS G03F007-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 38

FAN.CNT 1

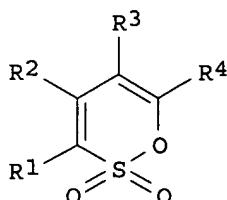
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004144933	A2	20040520	JP 2002-308752	20021023
PRAI JP 2002-308752		20021023		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004144933	ICM	G03F007-004
	ICS	G03F007-00
JP 2004144933	FTERM	2H025/AA01; 2H025/AA04; 2H025/AB03; 2H025/AD03; 2H025/BE00; 2H025/BG00; 2H025/CB28; 2H025/CB45; 2H025/CC11; 2H025/CC20; 2H025/FA17; 2H096/AA06; 2H096/BA11; 2H096/EA04; 2H096/GA08

OS MARPAT 140:414977

GI



I

AB The photoimaging compns. contain alkali-soluble resins having phenolic hydroxy groups, photothermal conversion agents, and sulfonate esters I [R1-4 = H, halo, (substituted) (cyclo)alkyl, alkenyl, etc.; two among R1-4 may form a ring] as photoacid generators. The compns. show high IR sensitivity and good development latitude and provide images with improved discrimination.

ST IR sensitive pos photoimaging compn lithog  
printing platemaking; arom sulfonate photoacid generator pos

STN search for 10765,797

photoimaging compn  
IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(in pos.-working photoimaging polymer compns. containing aromatic sulfonate  
photoacid generators for IR platemaking)  
IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak; in pos.-working photoimaging polymer compns. containing aromatic  
sulfonate photoacid generators for IR platemaking)  
IT Catalysts  
(photochem., aromatic sulfonate esters; in pos.-working photoimaging  
polymer compns. containing aromatic sulfonate photoacid generators for  
IR platemaking)  
IT Photoimaging materials  
(pos.-working; pos.-working photoimaging polymer compns. containing aromatic  
sulfonate photoacid generators for IR platemaking)  
IT Lithographic plates  
(presensitized; pos.-working photoimaging polymer compns. containing  
aromatic  
sulfonate photoacid generators for IR platemaking)  
IT 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer 137462-24-9,  
Megafac F 176 690638-49-4, MCF 312  
RL: TEM (Technical or engineered material use); USES (Uses)  
(in pos.-working photoimaging polymer compns. containing aromatic sulfonate  
photoacid generators for IR platemaking)  
IT 4941-84-8 39533-27-2 139127-60-9  
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES  
(Uses)  
(photoacid generator; in pos.-working photoimaging polymer compns.  
containing aromatic sulfonate photoacid generators for IR  
platemaking)  
IT 134127-48-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(photothermal conversion agent; in pos.-working photoimaging polymer  
compns. containing aromatic sulfonate photoacid generators for IR  
platemaking)

L11 ANSWER 12 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:249430 CAPLUS  
DN 140:294808  
ED Entered STN: 26 Mar 2004  
TI Storage-stable and high-sensitivity presensitized lithographic  
plates, manufacture of printing plates from them, and  
printing method using them  
IN Makino, Naonori; Inno, Norifumi  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 34 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N001-14  
ICS B41C001-055; G03F007-00; G03F007-004  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
FAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE  
-----  
PI JP 2004090436 A2 20040325 JP 2002-255218 20020830  
PRAI JP 2002-255218 20020830  
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004090436	ICM	B41N001-14
	ICS	B41C001-055; G03F007-00; G03F007-004
JP 2004090436	FTERM	2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/BC13; 2H025/BC42; 2H025/BJ03; 2H025/CB07; 2H025/CC13; 2H025/CC17; 2H025/DA10; 2H025/FA10; 2H084/AA14; 2H084/AE05; 2H084/BB02; 2H084/BB04; 2H084/BB13; 2H084/CC05; 2H096/AA06; 2H096/BA05; 2H096/EA04; 2H096/EA23; 2H114/AA04; 2H114/AA23; 2H114/BA01; 2H114/DA21; 2H114/DA74; 2H114/FA06
AB	The presensitized plate, suitable for computer-to-plate (CTP) systems and on-machine development, has an imaging layer containing microcapsules, which comprise polymer shells and cores of polymerizable compds., wherein the microcapsules contain isocyanates in such an amount that the ratio of IR absorbance peak intensity of the microcapsules at 2200-2400 cm-1 to that at 2800-3000 cm-1 is in the range of 0.05-0.50.	
ST	presensitized lithog plate storage stability photoimaging; microcapsule presensitized printing plate CTP sensitivity; IR absorbance isocyanate microcapsule lithog plate	
IT	Microcapsules (containing polymerizable compds.; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)	
IT	Polyurethanes, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluorine-containing, microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)	
IT	Polyurethanes, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)	
IT	Epoxy resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (microcapsules containing; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)	
IT	Fluoropolymers, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyurethane-, microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)	
IT	Lithographic plates (presensitized; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)	
IT	Lithographic plates Lithography Photoimaging materials (storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)	
IT	Imaging (thermal, photothermal; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)	
IT	466694-02-0P, Millionate MR 200-Takenate D 110N copolymer      675836-16-5P	

STN search for 10765,797

675836-17-6P 675836-19-8P 675836-23-4P 675836-24-5P 675836-25-6P

675862-95-0P 676361-39-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)

IT 25068-38-6, Epikote 1004 30528-89-3, Butyl methacrylate-allyl methacrylate copolymer 52411-04-8 118322-44-4, 2-Propenoic acid, tetraester with tetrakis(hydroxymethyl)propane

RL: TEM (Technical or engineered material use); USES (Uses)  
(microcapsules containing; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)

L11 ANSWER 13 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:219920 CAPLUS

DN 140:232085

ED Entered STN: 19 Mar 2004

TI Microfluidic channels with attached biomolecules

IN Liu, Yingjie; Grodzinski, Piotr; Rauch, Cory; Smekal, Thomas J.

PA USA

SO U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM C12Q001-68

ICS B05D003-00; C12M001-34; G01N033-53

NCL 435006000; 435007100; 435287200; 427002110

CC 9-1 (Biochemical Methods)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI US 2004053237	A1	20040318	US 2002-242872	20020913
PRAI US 2002-242872		20020913		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

-----	-----	-----
-------	-------	-------

US 2004053237 ICM C12Q001-68

ICS B05D003-00; C12M001-34; G01N033-53

NCL 435006000; 435007100; 435287200; 427002110

US 2004053237 ECLA B01L003/00C6M

AB An exemplary system and method for bonding substrate layers in the presence of chemical active species to form functionalized microfluidic surfaces is disclosed as comprising inter alia a first substrate (100), a second substrate (200), a chemical functional species (120) attached to first substrate (100), and a radiatively absorptive mask material (130) disposed substantially between first substrate (100) and second substrate (200). Mask material (130) is suitably adapted to effectively bond first substrate (100) with second substrate (200) upon exposure of the composite structure to radiation of a predetd., user-selectable wavelength. Disclosed features and specifications may be variously controlled, adapted or otherwise optionally modified to improve certain device fabrication parameters and/or performance metrics.

ST microfluidic channel attached biomol biosensor

IT Photoelectric devices

(IR; preparation and device of microfluidic channels with attached biomols.)

IT Minerals, reactions

Polymers, reactions

RL: DEV (Device component use); RCT (Reactant); TEM (Technical or

STN search for 10765,797

engineered material use); RACT (Reactant or reagent); USES (Uses)  
(as substrate; preparation and device of microfluidic channels with attached  
biomols.)

IT Biochemical molecules  
(immobilized; preparation and device of microfluidic channels with attached  
biomols.)

IT Apparatus  
(microfluidic; preparation and device of microfluidic channels with attached  
biomols.)

IT Fluids  
(microfluids; preparation and device of microfluidic channels with attached  
biomols.)

IT Biosensors

Composites

Electromagnetic wave

Fluorometry

Glass substrates

IR lasers

IR radiation

Immobilization, molecular or cellular

Microwave

Molecules

Multilayers

Optical absorption

Photomasks (lithographic masks)

Pore

Radio wave

Screen printing  
(preparation and device of microfluidic channels with attached biomols.)

IT Amino acids, reactions

Antibodies and Immunoglobulins

Antigens

DNA

Elements

Enzymes, reactions

Oligonucleotides

Probes (nucleic acid)

Proteins

RNA

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation and device of microfluidic channels with attached biomols.)

IT Polycarbonates, reactions  
RL: DEV (Device component use); RCT (Reactant); TEM (Technical or  
engineered material use); RACT (Reactant or reagent); USES (Uses)  
(substrate; preparation and device of microfluidic channels with attached  
biomols.)

IT Plastics, reactions  
RL: DEV (Device component use); RCT (Reactant); TEM (Technical or  
engineered material use); RACT (Reactant or reagent); USES (Uses)  
(thermoplastics; preparation and device of microfluidic channels with  
attached biomols.)

IT 14808-60-7, Quartz, reactions  
RL: DEV (Device component use); RCT (Reactant); TEM (Technical or  
engineered material use); RACT (Reactant or reagent); USES (Uses)  
(as substrate; preparation and device of microfluidic channels with attached  
biomols.)

L11 ANSWER 14 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:91695 CAPLUS  
DN 140:347355

STN search for 10765,797

ED    Entered STN: 05 Feb 2004  
TI    Extending optics to 50 nm and beyond with immersion lithography  
AU    Switkes, M.; Kunz, R. R.; Rothschild, M.; Sinta, R. F.; Yeung, M.; Baek, S.-Y.  
CS    Lincoln Laboratory, Massachusetts Institute of Technology, Lexington, MA, 02420, USA  
SO    Journal of Vacuum Science & Technology, B: Microelectronics and Nanometer Structures--Processing, Measurement, and Phenomena (2003), 21(6), 2794-2799  
      CODEN: JVSTBM; ISSN: 1071-1023  
PB    American Institute of Physics  
DT    Journal  
LA    English  
CC    74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
AB    Numerical imaging simulations demonstrate the capability of immersion lithog. to print features smaller than 45 nm (35 nm) with good depth of focus at a vacuum wavelength of 193 nm (157 nm). The optical impact of index variation of the immersion liquid is simulated and found to be a shift of focus of 1 nm for each 1 ppm change in the bulk index of the liquid. For an index which varies through the thickness of the liquid (e.g., due to nonuniform temperature), the focus shift is found to be proportional to the total change in optical path length (OPL), with a 1 nm change in OPL leading to a .apprx.1.5 nm focus shift at 1.3 numerical aperture. A focus offset of 1-3 nm can be expected due to heating during scanning exposure. The possible formation of nanobubbles at resist surfaces is also discussed. While simulations show that even 10 nm thick bubbles at the surface of the resist cause 30% modulation in the aerial image intensity, no evidence of bubbles is seen in open frame immersion exposures. Imaging of 100 nm features is shown using an immersion contact phase-edge technique, with no evidence of bubbles or adverse liquid-resist interactions. Finally, we describe progress in the search for low absorbance liqs. for use at 157 nm. Liquid purity, including dissolved O<sub>2</sub> and H<sub>2</sub>O, is found to be critical. The current absorbance record, 0.64±0.07 cm<sup>-1</sup>, held by perfluorotriglyme (CF<sub>3</sub>[OCF<sub>2</sub>CF<sub>2</sub>]<sub>3</sub>OCF<sub>3</sub>), is enough for a 350 μm working distance at 95% transmission.  
ST    extending optics resoln immersion lithog photolithog  
IT    Photolithography  
      Simulation and Modeling, physicochemical  
            (extending optics to 50 nm and beyond with immersion lithog.)  
IT    Bubbles  
      (extending optics to 50 nm and beyond with immersion lithog.  
            in relation to formation of nanobubbles)  
IT    Liquids  
      (immersion liqs.; extending optics to 50 nm and beyond with immersion lithog.)  
IT    64028-04-2, Perfluorotriglyme  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
      (extending optics to 50 nm and beyond with immersion lithog.  
            in relation to immersion fluid purity)  
RE.CNT 19    THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Allen, R; Proc SPIE 1995, V2438, P474 CAPLUS  
(2) Baek, S; Proc SPIE 2003, V5040, P1620  
(3) Burnett, H; Proc SPIE 2003, V5040, P1742  
(4) Kawata, H; Jpn J Appl Phys, Part 1 1992, V31, P4174 CAPLUS  
(5) Kawata, H; Microelectron Eng 1989, V9, P31 CAPLUS  
(6) Kunz, R; J Vac Sci Technol B 2003, V21, P78 CAPLUS  
(7) Leung, P; J Chem Eng Data 1987, V32, P169 CAPLUS

STN search for 10765,797

- (8) Lin, B; Microelectron Eng 1987, V6, P31 CAPLUS
- (9) Owa, S; Proc SPIE 2003, V5040, P724 CAPLUS
- (10) Owen, G; J Vac Sci Technol B 1992, V10, P3032 CAPLUS
- (11) Switkes, M; J Microlithogr, Microfabr, Microsyst 2002, V1, P225 CAPLUS
- (12) Switkes, M; J Vac Sci Technol B 2001, V19, P2353 CAPLUS
- (13) Switkes, M; Proc SPIE 2003, V5040, P690 CAPLUS
- (14) Taharelli, W; US 4509852 1985
- (15) Takanashi, A; US 4480910 1984
- (16) Tyrrell, J; Phys Rev Lett 2001, V87, P176104 MEDLINE
- (17) Ulrich, W; preprint 2002
- (18) Wei, A; J Vac Sci Technol B, these proceedings
- (19) Wei, A; Proc SPIE 2003, V5040, P713

L11 ANSWER 15 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:57237 CAPLUS

DN 140:119900

ED Entered STN: 23 Jan 2004

TI Procedure for treating the outer surfaces of printing cylinders  
for improved print quality in double-sided printing

IN Jentzsch, Arndt; Kuehn, Roland; Schinkel, Olaf

PA Koenig & Bauer A.-G., Germany

SO Ger. Offen., 6 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM B41F013-08

ICS B41F013-10; B41F035-06; C08J007-16; C09D001-00; C09D183-04

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

Section cross-reference(s): 42

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 10227759	A1	20040122	DE 2002-10227759	20020621
PRAI DE 2002-10227759		20020621		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10227759	ICM	B41F013-08
	ICS	B41F013-10; B41F035-06; C08J007-16; C09D001-00; C09D183-04
DE 10227759	ECLA	B41F022/00

AB A procedure for treating the outer surfaces of printing  
cylinders of a printing press is described which gives improved  
print quality on materials that are printed on both  
sides. In the process an ink-repelling and/or wear-retarding layer is  
applied to the outer surface of the printing cylinder as a solution  
and then heated or exposed to light to produce the layer. The  
alc. or aqueous solution providing the layer can consist of inorg. compound  
nanoparticles modified with an organic compd and containing a photoinitiator.  
Especially useful are nanoparticles from SiO<sub>2</sub>, TiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> ZrO<sub>2</sub> and their  
mixts.

which are treated with fluoroalkylsilanes or fluoroalkyl  
-functionalized siloxanes.

ST coating printing cylinder outer surface print quality

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); USES (Uses)  
(fluoroalkyl polysiloxane-; procedure for treating outer  
surfaces of printing cylinders for improved print  
quality in double-sided printing)

STN search for 10765,797

IT Polysiloxanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluoroalkyl; procedure for treating outer surfaces of  
printing cylinders for improved print quality in  
double-sided printing)

IT Lithographic plates  
(offset, cylinders; procedure for treating outer surfaces of  
printing cylinders for improved print quality in  
double-sided printing)

IT 1314-23-4, Zirconium oxide, uses 1344-28-1, Aluminum oxide, uses  
7631-86-9, Silica, uses 13463-67-7, Titanium oxide, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(nanoparticles; procedure for treating outer surfaces of  
printing cylinders for improved print quality in  
double-sided printing)

IT 7803-62-5D, Silane, alkoxy derivs., hydrolysis products  
RL: MOA (Modifier or additive use); USES (Uses)  
(procedure for treating outer surfaces of printing cylinders  
for improved print quality in double-sided printing  
)

L11 ANSWER 16 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:55557 CAPLUS  
DN 140:119898  
ED Entered STN: 22 Jan 2004  
TI Direct-write waterless lithographic printing plates  
for direct platemaking with no debris formation  
IN Katano, Yasuo  
PA Ricoh Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N001-14  
ICS G03F007-00; G03F007-004  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004017592✓	A2	20040122	JP 2002-179042	20020619
PRAI JP 2002-179042		20020619		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004017592	ICM	B41N001-14
	ICS	G03F007-00; G03F007-004
JP 2004017592	FTERM	2H025/AA01; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/BH03; 2H096/AA06; 2H096/BA01; 2H096/BA20; 2H096/EA04; 2H114/AA05; 2H114/AA22; 2H114/BA10; 2H114/EA01; 2H114/EA02

AB The plates, useful for digital imaging by low-energy laser exposure,  
consist of substrates and recording layers containing heat-fusible  
polymers (perfluoroalkyl acrylate polymers, preferably) and  
ink-repellent materials (polydimethylsiloxane, preferably) dispersed in  
the polymers, wherein the polymers melt or increase the surface roughness  
on heating. The plates may have layers containing light (400-900  
nm)-absorbing materials between the substrates and recording layers.

ST lithog printing plate heat fusible polymer;

STN search for 10765,797

direct platemaking debris prevention polydimethylsiloxane particle;  
perfluoroalkyl acrylate polymer surface roughness platemaking  
IT Polysiloxanes, uses  
RL: DEV (Device component use); USES (Uses)  
(ink-repellent particles, recording layer; lithog.  
printing plates for dampening-free direct platemaking with no  
debris formation by low-energy laser exposure)  
IT Carbon black, uses  
RL: DEV (Device component use); USES (Uses)  
(light-absorbing layer; lithog. printing plates for  
dampening-free direct platemaking with no debris formation by  
low-energy laser exposure)  
IT Fluoropolymers, uses  
RL: DEV (Device component use); USES (Uses)  
(recording layer; lithog. printing plates for  
dampening-free direct platemaking with no debris formation by  
low-energy laser exposure)  
IT Polyesters, uses  
RL: DEV (Device component use); USES (Uses)  
(substrate; lithog. printing plates for  
dampening-free direct platemaking with no debris formation by  
low-energy laser exposure)  
IT Lithographic plates  
(waterless; lithog. printing plates for  
dampening-free direct platemaking with no debris formation by  
low-energy laser exposure)  
IT 9016-00-6, Polydimethylsiloxane 31900-57-9, Polydimethylsiloxane  
RL: DEV (Device component use); USES (Uses)  
(ink-repellent particles, recording layer; lithog.  
printing plates for dampening-free direct platemaking with no  
debris formation by low-energy laser exposure)  
IT 79-10-7D, Acrylic acid, alkyl derivs., polymers 9002-88-4, Polyethylene  
646534-83-0  
RL: DEV (Device component use); USES (Uses)  
(recording layer; lithog. printing plates for  
dampening-free direct platemaking with no debris formation by  
low-energy laser exposure)  
IT 25038-59-9, Poly(ethylene terephthalate), uses  
RL: DEV (Device component use); USES (Uses)  
(substrate; lithog. printing plates for  
dampening-free direct platemaking with no debris formation by  
low-energy laser exposure)

L11 ANSWER 17 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:903178 CAPLUS  
DN 139:366441  
ED Entered STN: 19 Nov 2003  
TI Phase change ink imaging component with polymer blend layer  
IN Pan, David H.; Badesha, Santokh S.; Yuan, Xiaoying; Stanton, Donald S.;  
Yeznach, Anthony; Snyder, Trevor J.  
PA Xerox Corporation, USA  
SO U.S., 13 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
IC ICM B41J002-01  
NCL 347103000; 347101000  
CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 74  
FAN.CNT 1

STN search for 10765,797

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI US 6648467	B1	20031118	US 2002-177779	20020620		
PRAI US 2002-177779		20020620				
CLASS						
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES				
US 6648467	ICM	B41J002-01				
	NCL	347103000; 347101000				
AB	An offset printing apparatus having a coated imaging member for use with phase-change inks, has a substrate, an optional intermediate layer, and an outer coating of a (filled) polymer blend of a first polymer and a second polymer different from the first polymer, and an optional heating member associated with the offset printing apparatus					
ST	hot melt ink receiving member printing app; coating receiving member printing app; fluoro rubber polysiloxane coating					
IT	<b>Fluoro rubber</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (bromotrifluorobutene-hexafluoropropene-tetrafluoroethylene-vinylidene fluoride, top coating blend with volume graft; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)					
IT	<b>Polysiloxanes, uses</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (coating volume graft blend with fluoro rubber; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)					
IT	<b>Inks</b> (hot-melt; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)					
IT	<b>Lithographic apparatus</b> (offset; containing imaging component with polymer blend coating layer)					
IT	<b>Polysiloxanes, uses</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polyamide-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)					
IT	<b>Polysiloxanes, uses</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polyester-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)					
IT	<b>Polysiloxanes, uses</b> RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polyimide-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)					
IT	<b>Polyamides, uses</b> Polyesters, uses Polyimides, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polysiloxane-; printing apparatus containing imaging component with					

polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Polysiloxanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polysulfone-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Ceramers  
Coating materials  
(printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Polymer blends  
RL: TEM (Technical or engineered material use); USES (Uses)  
(printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Polysulfones, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(siloxane-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Fluoro rubber  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(top coating volume graft blend with polysiloxanes; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Silicone rubber, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(under coat; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT 7429-90-5, Aluminum, miscellaneous  
RL: MSC (Miscellaneous)  
(imaging substrate; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT 25190-89-0, Hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Abkowitz; US 5856013 A 1999 CAPLUS  
(2) Knepper; US 5569750 A 1996 CAPLUS  
(3) Ryang; US 4517342 A 1985 CAPLUS  
(4) Titterington; US 5645888 A 1997 CAPLUS  
(5) Watanabe; US 4728687 A 1988 CAPLUS

L11 ANSWER 18 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:762249 CAPLUS  
DN 139:268051  
ED Entered STN: 30 Sep 2003  
TI Heat-sensitive plate material for lithographic printing plates  
IN Ide, Yoichiro; Hayashi, Minoru  
PA Asahi Kasei Corporation, Japan

STN search for 10765,797

SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N001-14  
ICS G03F007-00; G03F007-004; G03F007-075  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003276351	A2	20030930 ✓	JP 2002-85913	20020326
PRAI JP 2002-85913		20020326		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003276351	ICM	B41N001-14 ICS G03F007-00; G03F007-004; G03F007-075

AB Title plate material, suitable for making lithog.  
printing plates by computer-to-plate method, comprises hydrophilic organic polymers and fine particles which form hydrophobic areas upon heating. The plate material is characterized by containing fluoropolymers or polysiloxanes. Lithog.  
printing plates made by using the heat-sensitive plate material is also claimed.

ST heat sensitive plate lithog printing;  
fluoropolymer heat sensitive plate; polysiloxane  
heat sensitive plate

IT Polysiloxanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(alkoxy; heat-sensitive plate material for lithog.  
printing plates)

IT Polysiloxanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(amino-containing; heat-sensitive plate material for  
lithog. printing plates)

IT Polysiloxanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(carboxy-containing; heat-sensitive plate material for  
lithog. printing plates)

IT Polyethers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(di-Me siloxane-; heat-sensitive plate material for  
lithog. printing plates)

IT Polysiloxanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(di-Me, polyether-; heat-sensitive plate material for  
lithog. printing plates)

IT Heat-sensitive materials  
Lithographic plates  
(heat-sensitive plate material for lithog.  
printing plates)

IT Fluoropolymers, uses  
Fluoropolymers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material

STN search for 10765,797

use); USES (Uses)  
(heat-sensitive plate material for lithog.  
printing plates)

IT Polyurethanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, microcapsules; heat-sensitive plate material for lithog. printing plates)

IT Polysiloxanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polysiloxane-; heat-sensitive plate material for lithog. printing plates)

IT Polyoxyalkylenes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polysiloxane-; heat-sensitive plate material for lithog. printing plates)

IT 9002-83-9, Chlorotrifluoroethylene homopolymer 9002-84-0, Polyflon D 2C  
24937-79-9, Polyvinylidene fluoride 24981-14-4, Polyvinyl fluoride  
25038-71-5, Ethylene-tetrafluoroethylene copolymer 25067-11-2,  
Hexafluoropropylene-tetrafluoroethylene copolymer 25101-45-5,  
Chlorotrifluoroethylene-ethylene copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(heat-sensitive plate material for lithog.  
printing plates)

IT 53187-92-1 123384-71-4, Coronate L-polyethylene glycol copolymer  
206254-81-1, Glycidyl methacrylate-trimethylolpropane triacrylate copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(microcapsules; heat-sensitive plate material for lithog. printing plates)

L11 ANSWER 19 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:751276 CAPLUS  
DN 139:268025  
ED Entered STN: 25 Sep 2003  
TI Lithographic plates producing less insoluble development scums  
having high printing durability and platemaking therefor  
IN Oshima, Yasuhito  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 54 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-00  
ICS C08F002-44; C08F283-00; G03F007-032; G03F007-30  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003270775	A2	20030925	JP 2002-68811	20020313
US 2003211420	A1	20031113	US 2003-386427	20030313
EP 1400852	A2	20040324	EP 2003-5399	20030313

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRAI JP 2002-68811 A 20020313

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003270775	ICM	G03F007-00
	ICS	C08F002-44; C08F283-00; G03F007-032; G03F007-30
US 2003211420	ECLA	G03F007/035; G03F007/32A
EP 1400852	ECLA	G03F007/035; G03F007/32A

AB The plates are manufactured by patternwise exposure of heat-mode laser beams on neg.-working presensitized lithog. plates having, on Al supports, urethane binders, ethylenically unsatd. compds., and photopolymn. catalysts, where the binders are prepared from diisocyanates, carboxyl-containing diols, diols of logP (hydrophobicity parameter, defined in disclosure) <0, and diols of logP >0. The thus-exposed layers are developed with developers containing nonionic compds. A-W (A = hydrophobic group giving logP of A-H ≥ 1.5; W = nonionic hydrophilic organic group giving logP of W-H <1.0) and satisfying pH 11.5-12.8 and elec. conductivity

3-30

mS/cm.

ST presensitized lithog plate development scum decreased; carboxyl contg urethane binder lithog plate; nonionic surfactant hydrophobic parameter presensitized lithog development

IT Polyurethanes, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(carboxyl-containing, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Polyurethanes, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fluorine-containing, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Lithographic plates

(lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Surfactants

(nonionic; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Photoimaging materials

(photopolymerizable; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Polyurethanes, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(polybutadiene-, block, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Polyurethanes, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(polyester-, block, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Polyurethanes, processes

STN search for 10765,797

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(polyoxyalkylene-, block, background area of pattern layers;  
lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT **Fluoropolymers, processes**  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(polyurethane-, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT **Lithographic plates**  
(presensitized; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 461661-03-0 603962-66-9 603962-67-0 603962-69-2 603962-70-5  
603962-71-6 603962-72-7 603991-55-5 603991-56-6 603991-57-7  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 26403-74-7 69778-08-1 99401-00-0 386214-34-2 386214-35-3  
386214-38-6 386214-40-0  
RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)  
(developers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 113506-31-3P 444903-86-0P 444903-87-1P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 57592-66-2, Pentaerythritol tetraacrylate homopolymer  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 37321-70-3, 1S  
RL: TEM (Technical or engineered material use); USES (Uses)  
(supports; lithog. plates containing sp. urethane binders and producing less insol. development scums)

L11 ANSWER 20 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:693976 CAPLUS  
DN 139:237726  
ED Entered STN: 05 Sep 2003  
TI IR-sensitive material composition for lithographic printing plate precursors  
IN Serikawa, Takeshi; Kawauchi, Ikuo  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 26 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-004  
ICS C08F220-24; C08F220-26; C08F220-56; C08F290-04; C08F290-06;  
G03F007-00; G03F007-039

STN search for 10765,797

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003248302	A2	20030905	JP 2002-49775	20020226
PRAI JP 2002-49775		20020226		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003248302	ICM	G03F007-004
	ICS	C08F220-24; C08F220-26; C08F220-56; C08F290-04; C08F290-06; G03F007-00; G03F007-039

AB The title composition contains **fluoro** aliphatic group-containing copolymer(A) and **fluoro** aliphatic group-containing copolymer(B), wherein the copolymer A has repeating unit -X-[-C(R<sub>2</sub>)(R<sub>3</sub>)-]m-[Cf<sub>2</sub>-CF<sub>2</sub>]n-F ( R<sub>2</sub>-3 = H, c1-4 alkyl; X = single bond, 2-valent connecting group; m≥1 integer; n≥1 integer) and repeating unit [-CH<sub>2</sub>-c(R<sub>4</sub>) {OO(CuH<sub>2</sub>uO)<sub>t</sub>R<sub>4</sub>}]( R<sub>4</sub> = H, C1-4 alkyl; t≥3 integer; u = 1-6 integer) and wherein copolymer B contains repeating unit -X-[-C(R<sub>2</sub>)(R<sub>3</sub>)-]m-[Cf<sub>2</sub>-CF<sub>2</sub>]n-F ( R<sub>2</sub>-3 = H, c1-4 alkyl; X = single bond, 2-valent connecting group; m≥1 integer; n≥1 integer) and repeating unit [-CH<sub>2</sub>-C(R<sub>5</sub>) {Coo(CoH<sub>2</sub>oO)a-(CpH<sub>2</sub>pO)b-(CqH<sub>2</sub>qO)c-(CrH<sub>2</sub>rO)d-(CsH<sub>2</sub>sO)e-R<sub>4</sub>} ] ( R<sub>5</sub> = H, C1-4 alkyl; R<sub>6</sub> = H, alkyl, aryl; o,p,q,r,s = 1-4 integer; a,b ≥4 integer; c,d,e ≥0 integer). The composition provides **lithog. printing plate precursor** of good coating surface characteristics and wide developing latitude.

ST IR sensitive compn **lithog printing plate precursor**

IT Light-sensitive materials

Lithographic plates  
(IR-sensitive material composition for **lithog. printing plate precursors**)

IT Fluoropolymers, preparation

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**fluoro** aliphatic group-containing copolymer)

IT 593259-04-2P 593259-06-4P 593259-08-6P 593259-10-0P 593259-12-2P

593259-14-4P 593259-16-6P 593259-18-8P 593259-20-2P 593259-22-4P

593266-62-7P 593266-63-8P 593266-64-9P 593266-65-0P 593266-66-1P

593266-67-2P 593266-68-3P 593266-69-4P 593266-70-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**fluoro** aliphatic group-containing copolymer)

L11 ANSWER 21 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:607533 CAPLUS

DN 139:151232

ED Entered STN: 08 Aug 2003

TI Glossy heat-set lithography offset printing inks with improved abrasion resistance

IN Imai, Kiyonobu; Ishii, Hideo; Takahashi, Noriyuki; Minai, Yoko; Sugiyama, Hiroyuki

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D011-02

STN search for 10765,797

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003221536	A2	20030808	JP 2002-22935	20020131
PRAI JP 2002-22935		20020131		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

JP 2003221536	ICM	C09D011-02
---------------	-----	------------

AB Title printing ink comprises wax (e.g., isoparaffins and/or cycloparaffins), having m.p. higher than room temperature (solid at room temperature)

and low maximum drying temperature after being written.

ST glossy lithog offset printing ink isoparaffin  
cycloparaffin

IT Inks

(lithog.; production of glossy heat-set lithog  
. offset printing inks with improved abrasion resistance)

IT Inks

(printing; production of glossy heat-set lithog  
. offset printing inks with improved abrasion resistance)

IT Cycloalkanes

Fluoropolymers, uses

Isoalkanes

RL: TEM (Technical or engineered material use); USES (Uses)  
(wax; production of glossy heat-set lithog. offset  
printing inks with improved abrasion resistance)

IT 9002-84-0

RL: TEM (Technical or engineered material use); USES (Uses)  
(wax; production of glossy heat-set lithog. offset  
printing inks with improved abrasion resistance)

L11 ANSWER 22 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:583042 CAPLUS

DN 139:157401

ED Entered STN: 30 Jul 2003

TI IR-sensitive material composition for fabricating image-forming layer of direct-imaging lithographic printing plate

IN Watanabe, Noriaki; Serikawa, Takeshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-039

ICS G03F007-00; G03F007-004; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003215803	A2	20030730	JP 2002-17252	20020125
PRAI JP 2002-17252		20020125		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

JP 2003215803	ICM	G03F007-039
---------------	-----	-------------

ICS	G03F007-00; G03F007-004; G03F007-038
-----	--------------------------------------

STN search for 10765,797

AB The title composition contains: (A) a water-insol. alkali-solubilizable resin; (B) a light-to-heat converting agent; (C) a F-containing (meth)acrylate polymer having 2-3 of C3-20 **perfluoroalkyl** groups; (D) a fluoro component copolymer; and (E) a copolymer of (meth)acrylate/poly(oxyalkylene) (meth)acrylate copolymer, wherein the fluoro copolymer(D) is prepared from: a monomer having a fluoro aliphatic group; one of CH<sub>2</sub>=C(A1)(CO-W-R2), CH<sub>2</sub>=C(A1)(-O-CO-R2), CH<sub>2</sub>=C(A1)(U), and maleic anhydride or imide; a monomer having acidic hydrogen connected to N and wherein copolymer(E) is made of: 25-70 % of (meth)acrylate, which contains fluoro aliphatic group having ≥40 % F, C3-20, per-fluorinated ≥3 end carbons; poly(oxylene alkylate). The composition provides the lithog. plate precursor of good storageability and good coated layer characteristics, and wide development latitude.

ST IR compn lithog printing plate

IT Light-sensitive materials

Lithographic plates

(IR-sensitive material composition for fabricating image-forming layer of direct-imaging lithog. printing plate)

IT 73038-33-2P 135758-92-8P 207792-99-2P 207793-00-8P 207793-01-9P  
251098-96-1P 569670-35-5P 569670-37-7P 569670-39-9P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fluoropolymer)

L11 ANSWER 23 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:570114 CAPLUS

DN 140:119764

ED Entered STN: 25 Jul 2003

TI Diffusion-induced line-edge roughness

AU Stewart, Michael D.; Schmid, Gerard M.; Goldfarb, Dario L.; Angelopoulos, Marie; Willson, C. Grant

CS Department of Chemical Engineering, Univ. of Texas at Austin, Austin, TX, 78712, USA

SO Proceedings of SPIE-The International Society for Optical Engineering (2003), 5039(Pt. 1, Advances in Resist Technology and Processing XX), 415-422

CODEN: PSISDG; ISSN: 0277-786X

PB SPIE-The International Society for Optical Engineering

DT Journal

LA English

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

AB As feature dimensions shrink, line edge roughness has become an increasing concern in semiconductor fabrication. There are numerous potential contributors to line edge roughness throughout the lithog. process and any measured roughness value on a printed device feature is, like the feature itself, a convolved function of every processing step. When the full lithog. process is used to study line edge roughness, it can be difficult to isolate the contribution to final roughness from any individual processing step or factor. To gain a more fundamental understanding of roughness generation that is specifically related to photoresist chemical and formulation it is necessary to design expts. that sep. out exposure related issues like mask dimension variation or local dose variation ("shot noise"). This can be accomplished using previously reported exptl. protocols for bilayer film stack creation. The bilayer exptl. approach has been used to study the effect of variations in such factors as post exposure bake time, photoacid generator loading, and developer concentration on roughness generation.

Surface

STN search for 10765,797

roughness of the developed film stacks is measured via atomic force microscopy. Surface roughness of developed bilayer film stacks may be considered analogous to sidewall roughness of printed features. An acrylate-based 193nm photoresist resin and an APEX-type resin are used in these expts. In addition to exptl. results, results from mesoscale lithog. simulations are used to gain further insight into diffusion induced roughness and how roughness in the latent image is modified during the development step.

ST acid diffusion AFM line edge surface roughness mesoscale simulation

IT Photolithography  
(UV; effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT Diffusion  
(acid diffusion-induced line-edge roughness)

IT Heat treatment  
Simulation and Modeling, physicochemical  
Surface roughness  
(effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT Semiconductor device fabrication  
(effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks in relation to)

IT 75-59-2, CD 26  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
(CD-26, developer; effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT 24979-70-2, Poly(4-hydroxystyrene)  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
(acid feeder layer; effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT 87261-04-9P, Poly(4-tert-butyloxycarbonyloxystyrene)  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); PROC (Process)  
(effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT 240435-11-4, Di(tert-butylphenyl)iodonium perfluorooctanesulfonate  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
(photoacid generator; effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; Technology Roadmap for Semiconductors (2001 Edition)

(2) Burns, S; Proc SPIE 2001, P4345

(3) Flanagan, L; J Vac Sci Technol B 1999, V17, P1371 CAPLUS

(4) Goldfarb, D; J Vac Sci Technol B 2001, V19, P2699 CAPLUS

(5) He, D; J Vac Sci Technol B 1998, V16, P3748 CAPLUS

(6) Koh, H; Proc SPIE 2000, V3999, P240 CAPLUS

(7) Lin, E; Science 2002, V297, P372 CAPLUS

(8) Rau, N; J Vac Sci Technol B 1998, V16, P3784 CAPLUS

STN search for 10765,797

- (9) Reynolds, G; J Vac Sci Technol B 1991, V17, P334
- (10) Reynolds, G; J Vac Sci Technol B 1999, V17, P3420 CAPLUS
- (11) Sanchez, M; Proc SPIE 1999, V3678, P160 CAPLUS
- (12) Schmid, G; J Vac Sci Technol B 2002, V20, P185 CAPLUS
- (13) Schmid, G; Proc SPIE 2000, V3999, P675 CAPLUS
- (14) Schmid, G; Proc SPIE 2001, V4345, P1037 CAPLUS
- (15) Shin, J; J Vac Sci Technol B 2001, V19, P2890 CAPLUS
- (16) Shiobara, E; Proc SPIE 1998, V3333, P313 CAPLUS
- (17) Ushirogouchi, T; Proc SPIE 1995, V2438, P160
- (18) Yamaguchi, T; Appl Phys Lett 1997, V71, P2388 CAPLUS
- (19) Yamaguchi, T; Proc SPIE 1999, V3678, P617 CAPLUS
- (20) Yoshimura, T; J Vac Sci Technol B 1992, V10, P185

L11 ANSWER 24 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:439601 CAPLUS

DN 139:15006

ED Entered STN: 10 Jun 2003

TI Lithographic master plates, their platemaking process and apparatus, and lithographic printing therewith

IN Hara, Takashi

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-14

ICS B41C001-055; B41F017-00; B41M005-26; G03F007-00; G03F007-004; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003165281	A2	20030610	JP 2002-123737	20020425
PRAI	JP 2001-288619	A	20010921		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 2003165281	ICM	B41N001-14
		ICS	B41C001-055; B41F017-00; B41M005-26; G03F007-00; G03F007-004; G03F007-11

AB The presensitized lithog. (PS) plates, for platemaking by patternwise heating or heat-mode laser exposure, have recording layers which are formed from dispersions of (A) wettability-variable materials which show water repellency on heating in dry state and wettability on heating in wet state, (B) hydrophilic materials, and optional photothermal converters by drying at a temperature or for a time to preventing A from filmforming. Neg.

or

pos. printing process on the PS plates without hydrophilic treatment, are detailed.

ST lithog platemaking fluoropolymer recording layer drying condition; fluoropolymer polyurethane exposed recording layer PS master; repellent treatment omitted platemaking PS plate

IT Fluoropolymers, processes

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses) (acrylic; repellent treatment-omitted low-cost platemaking on presensitized lithog. plates)

IT Carbon black, uses

STN search for 10765,797

RL: DEV (Device component use); USES (Uses)  
(photothermal converters; repellent treatment-omitted low-cost  
platemaking on presensitized lithog. plates)

IT Lithographic plates  
(presensitized; repellent treatment-omitted low-cost platemaking on  
presensitized lithog. plates)

IT Polyurethanes, processes  
RL: DEV (Device component use); PEP (Physical, engineering or chemical  
process); PYP (Physical process); PROC (Process); USES (Uses)  
(recording layers; repellent treatment-omitted low-cost platemaking on  
presensitized lithog. plates)

IT Lithography  
(repellent treatment-omitted low-cost platemaking on presensitized  
lithog. plates)

IT 79-10-7D, Acrylic acid, perfluoroalkyl esters, polymers  
RL: DEV (Device component use); PEP (Physical, engineering or chemical  
process); PYP (Physical process); PROC (Process); USES (Uses)  
(recording layers; repellent treatment-omitted low-cost platemaking on  
presensitized lithog. plates)

L11 ANSWER 25 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:391192 CAPLUS

DN 138:393112

ED Entered STN: 22 May 2003

TI Positive-working offset printing plate master suitable for  
direct platemaking by IR laser

IN Endo, Akihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS B41N001-14; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

FAN.CNT 1

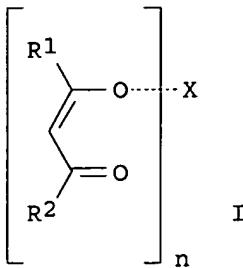
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003149798	A2	20030521	JP 2001-344522	20011109
PRAI JP 2001-344522		20011109		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003149798	ICM	G03F007-00
	ICS	B41N001-14; G03F007-004

OS MARPAT 138:393112

GI



AB The title **printing plate master** includes an image recording layer comprised of a photo-thermal conversion material, an alkaline-soluble polymer containing a phenolic OH group, and an organometallic complex represented by I (R<sub>1</sub>, R<sub>2</sub> = H, alkyl, fluoroalkyl, aralkyl, aryl, alkyl ether, alkyl ester; X = metal atom; n = 1-3). By including the above organometallic complex, the **printing plate master** shows excellent development latitude and **printability**.

ST offset **printing plate master** organometallic complex acetone

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak, alkaline-soluble polymer; organometallic complex additive-containing  
pos.-working offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

IT Lithographic plates  
(offset; organometallic complex additive-containing pos.-working offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

IT 27029-76-1, Formaldehyde-m-cresol-p-cresol copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(alkaline-soluble polymer; organometallic complex additive-containing pos.-working  
offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

IT 10210-64-7, Bis(acetylacetato)beryllium 12193-47-4,  
Bis(acetylacetato)strontium, uses 13963-57-0,  
Tris(acetylacetato)aluminum 14024-56-7, Bis(acetylacetato)magnesium  
19372-44-2, Bis(acetylacetato)calcium, uses 19648-85-2,  
Bis(hexafluoroacetylacetato)magnesium 118448-18-3,  
Bis(dipivaloylmethanato)calcium 121012-90-6,  
Bis(hexafluoroacetylacetato)calcium  
RL: MOA (Modifier or additive use); USES (Uses)  
(organometallic complex additive-containing pos.-working offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

IT 134127-48-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(photo-thermal conversion material; organometallic complex additive-containing pos.-working offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

STN search for 10765,797

L11 ANSWER 26 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:300305 CAPLUS  
DN 138:312905  
ED Entered STN: 18 Apr 2003  
TI Method of fabricating electric circuits using an adhesiveless transfer lamination method  
IN Kydd, Paul H.  
PA Paralec Inc., USA  
SO U.S. Pat. Appl. Publ., 11 pp., Cont.-in-part of U.S. Ser. No. 458,929, abandoned.  
CODEN: USXXCO  
DT Patent  
LA English  
IC ICM B44C001-00  
NCL 156233000; 156235000; 156238000  
CC 76-14 (Electric Phenomena)  
Section cross-reference(s): 38, 42, 57, 69, 74  
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003070747	A1	20030417	US 2002-265513	20021004
	US 6743319	B2	20040601		
	US 6379745	B1	20020430	US 1999-367783	19990820
	EP 1410403	A1	20040421	EP 2001-952277	20010628
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004534362	T2	20041111	JP 2003-509466	20010628
	US 2004151893	A1	20040805	US 2003-481994	20031226
	US 2004265549	A1	20041230	US 2004-802361	20040317
PRAI	US 1999-367783	A	19990820		
	US 1999-458929	B2	19991210		
	US 1997-38514P	P	19970220		
	US 1997-38669P	P	19970220		
	US 1997-38670P	P	19970220		
	WO 1997-US16226	W	19970912		
	US 1998-111947P	P	19981211		
	US 1999-153783P	P	19990914		
	WO 2001-US20575	W	20010628		
	US 2002-265513	A3	20021004		

CLASS	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 2003070747	ICM	B44C001-00
		NCL	156233000; 156235000; 156238000
	US 2003070747	ECLA	H05K003/20G
	US 6379745	ECLA	H01B001/22; H01L021/48C4S; H01L021/60B2; H01L023/498M4; H05K001/09D
	JP 2004534362	FTERM	5E343/AA02; 5E343/AA15; 5E343/AA17; 5E343/BB24; 5E343/BB25; 5E343/BB39; 5E343/BB40; 5E343/BB47; 5E343/BB48; 5E343/BB49; 5E343/BB72; 5E343/DD02; 5E343/ER35; 5E343/GG11; 5G301/DA02; 5G301/DA03; 5G301/DA05; 5G301/DA06; 5G301/DA07; 5G301/DA10; 5G301/DA11; 5G301/DA12; 5G301/DA13; 5G301/DA14; 5G301/DA15; 5G301/DA22; 5G301/DA42; 5G301/DD01; 5G301/DD02; 5G301/DD10; 5G323/CA03
	US 2004265549	ECLA	H05K003/20G

AB The invention relates to a method of fabricating elec. circuits using an adhesiveless transfer lamination method. An electronic circuit is made by printing a Parmod composition on a temporary substrate and curing it to produce a pattern of metal conductors. The conductors are laminated to a

STN search for 10765,797

substrate under heat and pressure to produce a laminate with the metal pre-patterned into the desired circuit configuration. The conductor can also be coated with a polymer and cured to form a prepatterned substrate. Single- and double-sided circuits or multilayers are made in this way.

ST fabrication elec circuit adhesiveless transfer lamination

IT Polyimides, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Matrimid, temporary substrate composed of; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Polyamide fibers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(aramid, temporary substrate composed of; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Heat treatment  
(curing by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Printing (nonimpact)  
(electrostatic, pattern applied by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Organometallic compounds  
RL: CPS (Chemical process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(metal pattern precursor; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Powders  
(metal, metal pattern precursor; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Decalcomanias

Thermocouples  
(method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Lithography  
(offset, pattern applied by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Gravure printing

Ink-jet printing

Printing (impact)

Screen printing  
(pattern applied by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Electric conductors  
(patterns; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Metals, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(patterns; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Printing (nonimpact)  
(stenciling, pattern applied by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Measuring apparatus  
(strain gauges; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Ceramics  
(substrates, temporary substrate composed of; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Foils

Glass substrates

Laminated materials

STN search for 10765,797

Paper  
Paperboard  
(temporary substrate composed of; method of fabricating elec. circuits  
using an adhesiveless transfer lamination method)  
IT Epoxy resins, uses  
Fluoropolymers, uses  
Polycarbonates, uses  
Polyesters, uses  
Polysiloxanes, uses  
Polysulfones, uses  
Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(temporary substrate composed of; method of fabricating elec. circuits  
using an adhesiveless transfer lamination method)  
IT Coating process  
(transfer; method of fabricating elec. circuits using an adhesiveless  
transfer lamination method)  
IT 7440-22-4, Silver, uses 7440-50-8, Copper, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Parmod, elec. conductor; method of fabricating elec. circuits using an  
adhesiveless transfer lamination method)  
IT 511256-67-0, Formula 27  
RL: TEM (Technical or engineered material use); USES (Uses)  
(circuit traces coated by; method of fabricating elec. circuits using  
an adhesiveless transfer lamination method)  
IT 511256-40-9, PC 7 (epoxy resin)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(holes plugged by; method of fabricating elec. circuits using an  
adhesiveless transfer lamination method)  
IT 55963-17-2, G 10  
RL: TEM (Technical or engineered material use); USES (Uses)  
(laminate with glass, precursor ink composed of; method of fabricating  
elec. circuits using an adhesiveless transfer lamination method)  
IT 26896-20-8, Neodecanoic acid 50315-14-5, Copper neodecanoate  
62804-19-7, Silver neodecanoate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(precursor ink composed of; method of fabricating elec. circuits using  
an adhesiveless transfer lamination method)  
IT 9002-84-0, Teflon 9002-88-4, Polyethylene 9003-07-0, Polypropylene  
9003-53-6, Polystyrene 9004-34-6, Cellulose, uses 24968-11-4, Kaladex  
2030 25036-53-7, Kapton H 157480-79-0, Espanex 180616-03-9, LARC-SI  
RL: TEM (Technical or engineered material use); USES (Uses)  
(temporary substrate composed of; method of fabricating elec. circuits  
using an adhesiveless transfer lamination method)

L11 ANSWER 27 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:172929 CAPLUS  
DN 138:229266  
ED Entered STN: 07 Mar 2003  
TI Lithographic printing plate precursor sensitive to ✓  
infrared laser radiation  
IN Mitsumoto, Tomoyoshi; Watanabe, Noriaki; Maemoto, Kazuo  
PA Fuji Photo Film Co., Ltd., Japan  
SO Eur. Pat. Appl., 44 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM B41C001-10  
ICS G03F007-004; G03F007-023  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

## Reprographic Processes)

Section cross-reference(s) : 35, 38

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1287984	A1	20030305	EP 2002-18162	20020819
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	JP 2003066607	A2	20030305	JP 2001-261660	20010830
	US 2003118942	A1	20030626	US 2002-217486	20020814
PRAI	JP 2001-261660	A	20010830		

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 1287984	ICM	B41C001-10
		ICS	G03F007-004; G03F007-023
	EP 1287984	ECLA	B41C001/10A
	US 2003118942	ECLA	B41C001/10A

AB A lithog. printing plate precursors sensitive to IR laser radiation is provided which shows an excellent coated surface state and an excellent stability with time against scratch. A lithog. printing plate precursors has a heat -sensitive layer containing: (A) a substance which absorbs a light to generate heat; (B) an alkaline aqueous solution-soluble resin having phenolic hydroxyl groups; (C) a polymer containing as a polymerizable component (meth)acrylate monomer having within the mol. 2 or 3 perfluoroalkyl groups containing 3-20 carbon atoms; and (D) a fluorine-containing polymer containing

at least three specific monomers as copolymerizable components.

ST lithog printing plate precursor sensitive IR  
laser radiation

IT Lithographic plates

(lithog. printing plate precursor sensitive to  
IR laser radiation)

IT 52002-56-9P, Isobutyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer 124996-93-6P, N-(p-Aminosulfonylphenyl)methacrylamide-acrylonitrile-ethyl methacrylate copolymer 207792-99-2P 207793-00-8P 207793-01-9P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(lithog. printing plate precursor sensitive to  
IR laser radiation containing)

IT 80-62-6DP, Methyl methacrylate, polymer with hydroxyethyl methacrylate and (meth)acrylate dihydronyclopentadiene derivative 868-77-9DP,  
2-Hydroxyethyl methacrylate, polymer with Me methacrylate and (meth)acrylate dihydronyclopentadiene derivative

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(lithog. printing plate precursor sensitive to  
IR laser radiation containing)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methylacrylic acid, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of alkali-soluble high mol. compound for lithog.  
printing plate precursor)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of alkali-soluble high mol. compound for lithog.  
printing plate precursor)

STN search for 10765,797

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 2000, V2000(10)
- (2) Fuji Photo Film Co Ltd; EP 0843218 A 1998 CAPLUS
- (3) Fuji Photo Film Co Ltd; EP 0949539 A 1999 CAPLUS
- (4) Fuji Photo Film Co Ltd; EP 1011030 A 2000 CAPLUS
- (5) Fuji Photo Film Co Ltd; JP 2000187318 A 2000 CAPLUS

L11 ANSWER 28 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:152366 CAPLUS

DN 138:212816

ED Entered STN: 28 Feb 2003

TI Light-sensitive composition for image recording layer of lithographic printing master plate

IN Kawachi, Ikuo  
PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 57 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-033

ICS C08K005-00; C08L033-16; C08L033-26; C08L101-14; G03F007-00;  
G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003057820	A2	20030228V	JP 2001-247351	20010816
PRAI JP 2001-247351		20010816		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003057820	ICM	G03F007-033
	ICS	C08K005-00; C08L033-16; C08L033-26; C08L101-14; G03F007-00; G03F007-004

AB The title composition contains a water-soluble alkali-solubilizable resin, a light-to-heat converting agent, a fluoro polymer A, and another fluoro polymer B, wherein fluoro polymer A contains a repeating unit -(CH<sub>2</sub>)<sub>m</sub>-(CF<sub>2</sub>-CF<sub>2</sub>)<sub>n</sub>-F (m, n = 1-6 integer) and wherein the fluoro polymer B contains ≥2 repeating unit -(CH<sub>2</sub>)<sub>m</sub>-(CF<sub>2</sub>-CF<sub>2</sub>)<sub>n</sub>-F (m, n = 1-6 integer). The composition provides the image recording layer of the good coatability, high printing durability, and the good scratch-resistance.

ST light compn lithog printing plate fluoro polymer

IT Light-sensitive materials

Lithographic plates  
(light-sensitive composition for image recording layer of lithog. printing master plate)

IT 290825-10-4P	451455-50-8P	451455-51-9P	451455-58-6P	451455-60-0P
451455-63-3P	451456-06-7P	451456-26-1P	451456-32-9P	451456-35-2P
451456-37-4P	451485-96-4P	464920-76-1P	464920-77-2P	464920-78-3P
464920-79-4P	464920-82-9P	464922-84-7P	464922-92-7P	464922-98-3P
500280-82-0P	500280-83-1P	500280-85-3P	500280-86-4P	500280-87-5P
500280-89-7P	500280-91-1P	500280-93-3P		

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fluoro polymer; light-sensitive composition for image recording

STN search for 10765,797

layer of lithog. printing master plate)

L11 ANSWER 29 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:33828 CAPLUS  
DN 138:80746  
ED Entered STN: 15 Jan 2003  
TI IR-absorbing polymers and photoimaging materials using them with good scratch resistance and no image soiling  
IN Nakamura, Ippei  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 39 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08G008-28  
ICS G03F007-004; G03F007-032  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003012746	A2	20030115	JP 2001-193251	20010626
PRAI JP 2001-193251		20010626		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003012746	ICM	C08G008-28
		ICS G03F007-004; G03F007-032

AB The photoimaging materials, useful for direct printing plate making, especially for pos. photoimaging, comprise polymers having (A) alkali-soluble functional groups, (B) functional groups that allow the polymers to be localized near surface, and (C) IR-absorbing groups. Residual photoimaging materials after developing is eliminated with this invention.  
ST IR photoimaging polymer direct plate making; scratch resistance presensitized printing plate IR; presensitized printing plate photoimaging surface localization  
IT Photoimaging materials (IR laser-sensitive scratch-resistant photoimaging materials for direct printing plate making)  
IT Lithographic plates (presensitized; IR laser-sensitive scratch-resistant photoimaging materials for direct printing plate making)  
IT Phenolic resins, preparation  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(reaction products; IR laser-sensitive scratch-resistant photoimaging materials for direct printing plate making)  
IT 112-76-5DP, Stearyl chloride, reaction products with phenolic resins 335-64-8DP, Perfluoroctanoyl chloride, reaction products with phenolic resins 6792-31-0DP, Hexafluoropropene trimer, reaction products with phenolic resins or hydroxystyrene 24979-70-2DP, 4-Hydroxystyrene homopolymer, reaction products with cyanine dyes and F-containing compds. 27029-76-1DP, m-Cresol-p-cresol-formaldehyde copolymer, reaction products with cyanine dyes and F-containing compds. or stearoyl chloride 134127-48-3DP, reaction products with phenolic resins or hydroxystyrene  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

STN search for 10765,797

(IR laser-sensitive scratch-resistant photoimaging materials  
for direct printing plate making)

L11 ANSWER 30 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:15797 CAPLUS  
DN 138:80732  
ED Entered STN: 08 Jan 2003  
TI Platemaking of lithographic printing plate by using  
automated development apparatus  
IN Aono, Koichiro; Kawachi, Ikuo; Okuno, Takashi  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 13 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-30  
ICS B41C001-055; G03F007-00; G03F007-004  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003005379	A2	20030108	JP 2001-188541	20010621
PRAI JP 2001-188541		20010621		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003005379	ICM	G03F007-30 ICS B41C001-055; G03F007-00; G03F007-004

AB A pos.-working presensitized lithog. printing plate  
having a photosensitive layer containing resins soluble in aqueous alkaline  
solns.,  
compds. absorbing light to generate heat, and long-chain  
alkyl-containing compds. on a support is exposed and processed with an  
automated apparatus having a development section, a water-washing section, a  
finisher section, and a conveyer section, wherein the apparatus has a  
developing bath equipped with rotary scrapers in contact with the  
photosensitive layer of the plate and optionally the reverse side of the  
photosensitive layer to satisfy position of the scrapers 1/3-2/3 of  
developing agent immersion section from inlet side, scraper rotation rate  
90-150 rpm, and contact width of the scrapers and the photosensitive layer  
1.0-4.0 mm. The plate suitable for direct IR laser exposure is  
continuously processed by the automated apparatus to have stable quality and  
uniform image.

ST pos working lithog plate development app scraper; IR  
laser platemaking photosensitive layer development app

IT Dyes  
(IR-absorbing, photosensitive layer containing; platemaking of  
lithog. printing plate by using automated development  
apparatus with rotary scrapers)

IT Apparatus  
(automated; platemaking of lithog. printing plate  
by using automated development apparatus with rotary scrapers)

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak, cresol-based, photosensitive layer containing; platemaking of  
lithog. printing plate by using automated development  
apparatus with rotary scrapers)

IT Fluoropolymers, uses

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)  
(photosensitive layer containing; platemaking of lithog.  
printing plate by using automated development apparatus with rotary  
scrapers)

IT Lithographic plates  
(presensitized, pos.-working; platemaking of lithog.  
printing plate by using automated development apparatus with rotary  
scrapers)

IT Brushes  
(roll as rotary scraper; platemaking of lithog.  
printing plate by using automated development apparatus with rotary  
scrapers)

IT Materials processing  
(scraping apparatus; platemaking of lithog. printing  
plate by using automated development apparatus with rotary scrapers)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(monomer for polymer in photosensitive layer; platemaking of  
lithog. printing plate by using automated development  
apparatus with rotary scrapers)

IT 141634-00-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methyl  
methacrylate copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
(photosensitive layer containing; platemaking of lithog.  
printing plate by using automated development apparatus with rotary  
scrapers)

IT 5303-25-3, Dodecyl stearate 27029-76-1, m-Cresol-p-cresol-formaldehyde  
copolymer 56347-72-9 68900-98-1, 3-Methoxy-4-diazodiphenylamine  
hexafluorophosphate 117283-53-1, Victoria Pure Blue BOH  
1-naphthalenesulfonate 134127-48-3 207793-01-9 482373-11-5  
RL: TEM (Technical or engineered material use); USES (Uses)  
(photosensitive layer containing; platemaking of lithog.  
printing plate by using automated development apparatus with rotary  
scrapers)

IT 37321-70-3, AA 1050  
RL: TEM (Technical or engineered material use); USES (Uses)  
(plate substrate; platemaking of lithog. printing  
plate by using automated development apparatus with rotary scrapers)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(platemaking of lithog. printing plate by using  
automated development apparatus with rotary scrapers)

L11 ANSWER 31 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:728737 CAPLUS

DN 137:270566

ED Entered STN: 25 Sep 2002

TI Recording materials with good ink stain resistance

IN Katano, Yasuo

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-14

ICS B41M005-00; B41M005-26

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

STN search for 10765,797

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002274076	A2	20020925	JP 2001-81891	20010322
	US 2002189477	A1	20021219	US 2002-99727	20020315
	US 6725777	B2	20040427		
PRAI	JP 2001-81891	A	20010322		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 2002274076	ICM	B41N001-14
		ICS	B41M005-00; B41M005-26
	US 2002189477	ECLA	B41N001/00A

AB The recording materials capable of giving good **printed** images and useful in **printing** plate applications contain a recording layer and a substrate layer. The recording layer comprise a polysiloxane material (S) and a material (F) in a sep. dispersed state, wherein the receding contact angle of the material (F) decreases when **heating** or cooling with a liquid; and it resumes to its original value when **heating** in the air. Thus, a coating comprising F-containing acrylic polymer emulsion (F) and silicone dispersion (S) was applied on a PET film and cured to give a recording material.

ST fluoro acrylic polymer receding contact angle recording material; polysiloxane **printing** plate material

IT Polysiloxanes, uses  
RL: DEV (Device component use); USES (Uses)  
(BY 244, SE 1950; recording materials containing F-containing acrylic polymers

and polysiloxanes with good ink stain resistance)

IT Fluoropolymers, uses  
RL: DEV (Device component use); USES (Uses)  
(acrylic; recording materials containing F-containing acrylic polymers and polysiloxanes with good ink stain resistance)

IT Printing plates  
(computer-to-plate; **printing** plates containing F-containing acrylic polymers and polysiloxanes with good ink stain resistance)

IT Acrylic polymers, uses  
RL: DEV (Device component use); USES (Uses)  
(fluorine-containing; recording materials containing F-containing acrylic polymers  
and polysiloxanes with good ink stain resistance)

IT Lithographic plates  
(offset; **printing** plates containing F-containing acrylic polymers and polysiloxanes with good ink stain resistance)

IT Recording materials  
(recording materials containing F-containing acrylic polymers and polysiloxanes  
with good ink stain resistance)

L11 ANSWER 32 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:711309 CAPLUS

DN 137:239775

ED Entered STN: 19 Sep 2002

TI **Lithographic printing** plate without wet processing  
containing heat switchable carboxylate polymer

IN Leon, Jeffrey W.

PA Kodak Polychrome Graphics LLC, USA

SO U.S., 14 pp., Cont.-in-part of U.S. 6,447,978.  
CODEN: USXXAM

DT Patent

STN search for 10765,797

LA English  
IC ICM G03F007-038  
NCL 430270100  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 37, 38

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6451500	B1	20020917	US 2000-644600	20000823
	US 6447978	B1	20020910	US 1999-454151	19991203
	WO 2001039985	A2	20010607	WO 2000-US32841	20001204
	WO 2001039985	A3	20011108		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1244548	A2	20021002	EP 2000-982378	20001204
	EP 1244548	B1	20040616		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2000016070	A	20030225	BR 2000-16070	20001204
	JP 2003527978	T2	20030924	JP 2001-541699	20001204
	EP 1413432	A1	20040428	EP 2003-28448	20001204
	R: BE, DE, FR, GB, IT, NL				
PRAI	US 1999-454151	A2	19991203		
	US 2000-644600	A	20000823		
	EP 2000-982378	A3	20001204		
	WO 2000-US32841	W	20001204		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 6451500	ICM	G03F007-038
		NCL	430270100
	US 6451500	ECLA	B41C001/10B; B41M005/36S
	US 6447978	ECLA	B41C001/10B; B41M005/36S
	EP 1413432	ECLA	B41C001/10B

AB An imaging member, such as a neg.-working printing plate or on-press cylinder, can be prepared using a hydrophilic imaging layer comprised of a heat-sensitive hydrophilic polymer that comprises recurring units comprising quaternary ammonium carboxylate groups. These quaternary ammonium carboxylate groups include at least one substituted-alkylene(C1-C3)-Ph group. The imaging member can also include an IR radiation sensitive material to provide added sensitivity to heat that can be supplied by laser irradiation in the IR region. The heat-sensitive polymer is considered "switchable" in response to heat, and provides a lithog. image without wet processing.

ST lithog printing plate wetless processing heat switchable carboxylate polymer; printing roll wetless processing heat switchable carboxylate polymer

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses) (crosslinking agent; lithog. printing plate without wet processing containing heat switchable carboxylate polymer)

STN search for 10765,797

IT    Lithographic plates  
      Printing rolls  
          (lithog. printing plate without wet processing  
            containing heat switchable carboxylate polymer)

IT    Carbon black, uses  
      RL: TEM (Technical or engineered material use); USES (Uses)  
          (polymer grafted; lithog. printing plate without  
            wet processing containing heat switchable carboxylate polymer)

IT    Acrylic polymers, preparation  
      RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
            use); PREP (Preparation); USES (Uses)  
          (reaction products with benzyl trimethylammonium hydroxide derivs.;  
            lithog. printing plate without wet processing containing  
            heat switchable carboxylate polymer)

IT    6018-06-0DP, reaction products with silver oxide and polyacrylic acid  
21949-11-1DP, reaction products with silver oxide and polyacrylic acid  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)  
          (lithog. printing plate without wet processing  
            containing heat switchable carboxylate polymer)

IT    333-45-9DP, Benzenemethanaminium, 4-fluoro-N,N,N-trimethyl-,  
bromide, reaction products with silver oxide and polyacrylic acid  
1585-16-6DP,  $\alpha$ -Chloroisodurene, reaction products with  
trimethylamine, silver oxide and polyacrylic acid 9003-01-4DP,  
Polyacrylic acid, reaction products with benzyl trimethylammonium  
hydroxide derivs. 16814-21-4DP, reaction products with silver oxide and  
polyacrylic acid 25251-56-3DP, 3-Chlorobenzyl trimethylammonium bromide,  
reaction products with silver oxide and polyacrylic acid 25251-62-1DP,  
4-Bromobenzyl trimethylammonium bromide, reaction products with silver  
oxide and polyacrylic acid 31280-95-2DP, Benzenemethanaminium,  
4-methoxy-N,N,N-trimethyl-, chloride, reaction products with silver oxide  
and polyacrylic acid 71677-96-8DP, reaction products with silver oxide  
and polyacrylic acid 84309-29-5DP, Benzenemethanaminium,  
2,4-dichloro-N,N,N-trimethyl-, chloride, reaction products with silver  
oxide and polyacrylic acid 97491-52-6DP, reaction products with silver  
oxide and polyacrylic acid 108848-19-7DP, 3,5-Dimethylbenzyl  
trimethylammonium bromide, reaction products with silver oxide and  
polyacrylic acid 342427-68-3DP, Benzenemethanaminium,  
3,4-dichloro-N,N,N-trimethyl-, chloride, reaction products with silver  
oxide and polyacrylic acid 342427-69-4DP, Benzenemethanaminium,  
3,4,5-trimethoxy-N,N,N-trimethyl-, bromide, reaction products with silver  
oxide and polyacrylic acid  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
          (lithog. printing plate without wet processing  
            containing heat switchable carboxylate polymer)

IT    96595-50-5, CR 5L 342634-54-2, FX-GE-003  
RL: TEM (Technical or engineered material use); USES (Uses)  
          (lithog. printing plate without wet processing  
            containing heat switchable carboxylate polymer)

RE.CNT 23    THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Anon; WO 9209934 1992 CAPLUS  
(2) Anon; EP 0652483 A1 1995 CAPLUS  
(3) Anon; EP 0924102 A1 1999  
(4) Anon; EP 1031412 2000  
(5) Anon; EP 980754 2000  
(6) Damme; US 6165691 A 2000 CAPLUS  
(7) Dominh; US 5922512 A 1999 CAPLUS  
(8) Esumi; US 4634659 A 1987 CAPLUS

STN search for 10765,797

- (9) Etoh; US 4405705 A 1983 CAPLUS
- (10) Fleming; US 6159657 A 2000 CAPLUS
- (11) Lee; US 4548893 A 1985 CAPLUS
- (12) Leon; US 6146812 A 2000 CAPLUS
- (13) Leon; US 6190830 B1 2001 CAPLUS
- (14) Leon; US 6190831 B1 2001 CAPLUS
- (15) Leon; US 6365705 B1 2002 CAPLUS
- (16) Li; US 5910395 A 1999 CAPLUS
- (17) Ma; US 5512418 A 1996
- (18) Oohashi; US 6153352 A 2000 CAPLUS
- (19) Pacansky; US 4081572 A 1978 CAPLUS
- (20) Schwartz; US 4693958 A 1987 CAPLUS
- (21) Uhlig; US 4034183 A 1977 CAPLUS
- (22) van Damme; US 6165679 A 2000 CAPLUS
- (23) Yamasaki; US 6242155 B1 2001 CAPLUS

L11 ANSWER 33 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:696263 CAPLUS  
DN 137:224182  
ED Entered STN: 13 Sep 2002  
TI Dithiocarboxylic acid self-assembled monolayers and methods for their use  
in microcontact printing  
IN Lee, T. Randall; Colorado, Ramon, Jr.  
PA USA  
SO PCT Int. Appl., 47 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM G03F007-00  
ICS G03F007-16; B05D001-28  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 66

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002071151	A1	20020912	WO 2002-US6481	20020306
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004137148	A1	20040715	US 2003-471066	20030905
PRAI	US 2001-273617P	P	20010306		
	WO 2002-US6481	W	20020306		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	WO 2002071151	ICM	G03F007-00
		ICS	G03F007-16; B05D001-28
	US 2004137148	ECLA	B05D001/28C
OS	MARPAT	137:224182	
AB	Aliphatic dithiocarboxylic acid compns. (ADTCAs) of the general formula (R)a-R'-(CS <sub>2</sub> H)b (R = carbon-containing, fluorinated carbon-containing or fluorocarbon-containing group; R' = carbon-containing group, multivalent		

STN search for 10765,797

atom, double bond, heteroatom analog, saturated, unsatd. aromatic ring system;  
a,  
b = integers the sum of which is less than a maximum number of 4 substituents  
R'  
can accommodate to form a relatively stable mol. species, with all other  
sites being occupied by hydrogen atoms) that form self-assembled  
monolayers (SAMs) on metal surface such as gold surfaces are disclosed.  
These new SAMs were characterized by optical ellipsometry, contact angle  
goniometry, and polarization modulation IR reflection absorption  
spectroscopy (PM-IRRAS). The data indicates that the ADTCAs generate well  
packed and highly oriented monolayer films on gold surfaces. A method for  
using the ADTCAs in micro-contact printing is also disclosed,  
where ADTCA SAM protected regions are capable of more efficient cleaning  
under mild conditions due to instabilities in the ADTCA compns.  
ST aliph dithiocarboxylic acid selfassembled monolayer microcontact  
printing  
IT Self-assembled monolayers  
(dithiocarboxylic acid self-assembled monolayers and methods for their  
use in microcontact printing)  
IT Lithography  
(microcontact printing; dithiocarboxylic acid self-assembled  
monolayers and methods for their use in microcontact printing  
)  
IT 85209-23-0P, Dodecane(dithioic) acid 100534-63-2P, Undecane(dithioic)  
acid 110154-16-0P, Heptadecane(dithioic) acid 139759-10-7P,  
Octadecane(dithioic) acid 214980-96-8P, Decane(dithioic) acid  
214980-97-9P, Tridecane(dithioic) acid 214980-98-0P,  
Tetradecane(dithioic) acid 214980-99-1P, Pentadecane(dithioic) acid  
214981-00-7P, Hexadecane(dithioic) acid 214981-01-8P,  
Nonadecane(dithioic) acid  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)  
(dithiocarboxylic acid self-assembled monolayers and methods for their  
use in microcontact printing)  
IT 7440-57-5, Gold, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dithiocarboxylic acid self-assembled monolayers and methods for their  
use in microcontact printing)  
IT 75-15-0, Carbon disulfide, reactions 106-93-4, 1,2-Dibromoethane  
693-58-3, 1-Bromononane 7439-95-4, Magnesium, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in preparation of dithiocarboxylic acid derivs. via Grignard addition of  
alkylmagnesium bromides to carbon disulfide)  
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Colorado, R; LANGMUIR 1998, V14(22) CAPLUS  
(2) He, H; LANGMUIR 2000, V16(25) CAPLUS  
(3) Knobler, C; NATURE 1994, V369(6475), P15  
(4) Shon, Y; ORGANIC/INORGANIC HYBRID MATERIALS II, MATERIALS RESEARCH SOCIETY  
SYMPOSIUM PROCEEDINGS VOL 576 1999, V576, P183 CAPLUS  
(5) Wilbur, J; ADVANCED MATERIALS 1995, V7(7), P649 CAPLUS  
(6) Wilbur, J; NANOTECHNOLOGY 1996, V7, P452 CAPLUS  
(7) Xia, Y; ANGEWANDTE CHEMIE INTERNATIONAL EDITION 1998, V37, P551  
(8) Xia, Y; MICROELECTRONIC ENGINEERING 1996, V32(1/4), P255  
(9) Younan, X; JOURNAL OF THE AMERICAN CHEMICAL SOCIETY 1995, V117(11), P3274

L11 ANSWER 34 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:689942 CAPLUS  
DN 137:224178  
ED Entered STN: 12 Sep 2002

STN search for 10765,797

TI Negative working lithographic printing plate master suitable for direct digital platemaking by IR laser

IN Aoshima, Keitaro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS B41N001-14; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002258467	A2	20020911	JP 2001-61475	20010306
	US 2002189476	A1	20021219	US 2002-87834	20020305
PRAI	JP 2001-61475	A	20010306		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

JP 2002258467	ICM	G03F007-00
	ICS	B41N001-14; G03F007-11
US 2002189476	ECLA	B41N001/08A; B41N001/14

AB The title lithog. printing plate master comprises a support, an alkali-developable photosensitive layer containing a photothermal conversion material and crosslinkable/polymerizable compound, and an overcoat layer containing a hydrophobic, alkali-soluble polymer. The printing plate master shows improved IR laser sensitivity, suppressed ablation of the photosensitive layer, and improved ink reception.

ST lithog printing plate master neg working direct digital platemaking; IR laser direct digital platemaking lithog printing plate master

IT Fluoropolymers, uses

RL: DEV (Device component use); USES (Uses)  
(in alkali-developable photosensitive layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT Lithographic plates

(neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT Photoimaging materials

(photopolymerizable; neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 134127-48-3

RL: DEV (Device component use); USES (Uses)  
(IR absorber; in alkali-developable photosensitive layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 28854-56-0, Styrene-p-vinylbenzoic acid copolymer 457625-40-0, Ethyl methacrylate-monoacryloyloxyethyl succinate copolymer

RL: DEV (Device component use); USES (Uses)  
(hydrophobic alkali-soluble; in overcoat layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 85-43-8, Tetrahydrophthalic acid anhydride 104-15-4, p-Toluene sulfonic acid, uses 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 29570-58-9, Dipentaerythritol hexaacrylate 90216-38-9, Allyl

STN search for 10765,797

methacrylate-methacrylic acid copolymer 207793-01-9  
RL: DEV (Device component use); USES (Uses)  
(in alkali-developable photosensitive layer of neg. working  
lithog. printing plate master suitable for direct  
digital platemaking by IR laser)

IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl  
methacrylate copolymer  
RL: DEV (Device component use); SPN (Synthetic preparation); PREP  
(Preparation); USES (Uses)  
(in alkali-developable photosensitive layer of neg. working  
lithog. printing plate master suitable for direct  
digital platemaking by IR laser)

IT 19600-49-8, Triphenylsulfonium acetate  
RL: DEV (Device component use); USES (Uses)  
(onium salt; in alkali-developable photosensitive layer of neg. working  
lithog. printing plate master suitable for direct  
digital platemaking by IR laser)

L11 ANSWER 35 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:636849 CAPLUS

DN 137:192781

ED Entered STN: 23 Aug 2002

TI Positive working lithographic direct printing plate  
for infrared laser exposure, containing novolak type phenolic  
resin

IN Nakamura, Ippei

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS G03F007-032

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002236353	A2	20020823	JP 2001-32720	20010208
PRAI	JP 2001-32720		20010208		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2002236353	ICM	G03F007-00
	ICS	G03F007-032

AB The material has a recording layer containing (1) a water insol. and alkali  
soluble novolak type phenolic resin containing methylene linkage  $\geq 55\%$  to  
total one at an ortho-ortho site to a phenolic OH and (2) an IR  
absorber. The layer increases solubility to an alkaline aqueous solution by IR  
laser exposure. The material showed improved image formation latitude on  
development, contrast, and abrasion resistance.

ST lithog plate laser sensitive IR absorbent; ortho  
methylene linkage phenol novolak resin lithog

IT Phenolic resins, preparation

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
(novolak; pos.-working lithog. plate containing IR  
absorbent and phenol novolak resin with ortho methylene linkage)

IT Lithographic plates

STN search for 10765,797

(pos.-working lithog. plate containing IR absorbent and phenol novolak resin with ortho methylene linkage)  
IT 134127-48-3 449762-40-7  
RL: TEM (Technical or engineered material use); USES (Uses) (IR absorbent; pos.-working lithog. plate containing IR absorbent and phenol novolak resin with ortho methylene linkage)  
IT 449759-91-5P, m-Cresol-2,2'-dihydroxy-5,5'-dimethyldiphenylmethane-formaldehyde copolymer 449759-94-8P, 2,6-Bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol-m-cresol-p-cresol-formaldehyde copolymer 449759-96-0P, 2,6-Bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol-m-cresol-formaldehyde-phenol copolymer 449759-98-2P, 2,6-Bis(2-hydroxy-5-fluorophenylmethyl)-4-fluorophenol-m-cresol-formaldehyde copolymer  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (pos.-working lithog. plate containing IR absorbent and phenol novolak resin with ortho methylene linkage)

L11 ANSWER 36 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:553151 CAPLUS  
DN 137:116982  
ED Entered STN: 26 Jul 2002  
TI Photosensitive resin composition for **lithographic printing plates**  
IN Kawauchi, Ikuo; Akiyama, Keiji; Watanabe, Noriaki; Kawamura, Koichi; Fujita, Kazuo; Serikawa, Takeshi; Nagashima, Akira  
PA Fuji Photo Film Co., Ltd., Japan  
SO Eur. Pat. Appl., 114 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM G03F007-004  
ICS G03F007-023; G03F007-032; G03F007-033; B41C001-10; B41M005-36  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35, 38

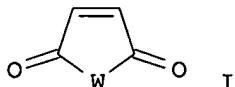
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1225478	A2	20020724	EP 2002-7384	19990406
	EP 1225478	A3	20020731		
	R: DE, GB				
	JP 11288093	A2	19991019	JP 1998-93143	19980406
	JP 11352681	A2	19991224	JP 1998-118961	19980428
	JP 11327134	A2	19991126	JP 1998-124884	19980507
	JP 2000010281	A2	20000114	JP 1998-178966	19980625
	EP 949539	A2	19991013	EP 1999-106132	19990406
	EP 949539	A3	20000119		
	EP 949539	B1	20030319		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002051929	A1	20020502	US 2001-862497	20010523
	US 6746812	B2	20040608		
PRAI	JP 1998-93143	A	19980406		
	JP 1998-93413	A	19980406		
	JP 1998-118961	A	19980428		
	JP 1998-124884	A	19980507		
	JP 1998-178966	A	19980625		
	EP 1999-106132	A3	19990406		

US 1999-287568 A3 19990406

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1225478	ICM	G03F007-004
	ICS	G03F007-023; G03F007-032; G03F007-033; B41C001-10; B41M005-36
EP 1225478	ECLA	B41C001/10A; B41M005/36S
EP 949539	ECLA	B41C001/10A; B41M005/36S; G03F007/004F; G03F007/023P
US 2002051929	ECLA	B41C001/10A; B41M005/36S; G03F007/004F; G03F007/023P
GI		



AB The present invention relates to a pos. type photosensitive composition for useful in a lithog. printing plate which comprises a novel fluorine-containing polymer. The present invention relates to a pos. type photosensitive composition which gives image-forming property of high contrast in a lithog. printing plate. The present invention relates to a pos. type photosensitive composition which comprises:  
 (a) a substance which absorbs a light and generates heat; (b) an alkaline aqueous solution-soluble resin having a phenolic hydroxyl group; and  
 (c) a fluorine-containing polymer containing at least the following (1) an addition polymerizable fluorine-containing monomer having, at the side chain, a fluoro aliphatic group; (2) a monomer represented by CH<sub>2</sub>=CA<sub>1</sub>[CO-W-R<sub>2</sub>], CH<sub>2</sub>=CA<sub>1</sub>[O-CO-R<sub>3</sub>], CH<sub>2</sub>=CA<sub>1</sub>[U] or I (A<sub>1</sub> = H, halogen atom, alkyl group; W = O, -NR<sub>1</sub>-; R<sub>1</sub> = H, alkyl, aryl group; R<sub>2</sub> = alkyl, aryl; R<sub>3</sub> = alkyl, aryl group; U = cyano, aryl, alkoxy, aryloxy, acyloxymethyl, nitrogen-containing heterocyclic group, -CH<sub>2</sub>OCOR<sub>3</sub>); and (3) an addition polymerizable monomer having an acidic hydrogen atom and an acidic group, said acidic hydrogen atom being bonded to a nitrogen atom of the acidic group.

ST lithog printing plate fluorine contg resin compn

IT Lithographic plates

(photosensitive resin composition for)

IT Phenolic resins, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(photosensitive resin composition for lithog. printing plates containing)

IT 207792-99-2P 207793-00-8P 207793-01-9P 246036-07-7P 246036-08-8P

246036-10-2P 246036-11-3P 246036-13-5P 246036-14-6P 246036-16-8P

246036-18-0P 246036-24-8P 246036-27-1P 246036-31-7P 246036-33-9P

443119-14-0P 443119-15-1P 443119-17-3P 443119-19-5P

RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive resin composition for lithog. printing plates containing)

IT 287118-70-1P, Acrylonitrile-N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate-N,N-dimethylacetamide copolymer

RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive resin composition for lithog. printing

STN search for 10765,797

plates containing)  
IT 9003-35-4, Formaldehyde-phenol copolymer 9016-83-5, Cresol-formaldehyde copolymer 24979-70-2, Maruka Lyncur M-S 4P 26335-33-1, Formaldehyde-p-n-octylphenol copolymer 153273-61-1  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(photosensitive resin composition for lithog. printing plates containing)  
IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions 541-41-3, Ethyl chloroformate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of photosensitive resin composition for lithog. printing plates containing)  
IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of photosensitive resin composition for lithog. printing plates containing)

L11 ANSWER 37 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:522484 CAPLUS  
DN 137:85989  
ED Entered STN: 12 Jul 2002  
TI Radiation-sensitive compositions comprising polyvinyl acetals having azido groups for lithographic printing plate  
IN Timpe, Hans-joachim; Muller, Ursula  
PA Kodak Polychrome Graphics LLC, Germany  
SO U.S. Pat. Appl. Publ., 11 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
IC ICM G03F007-038  
NCL 430270100  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38

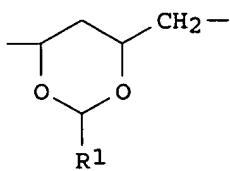
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002090566	A1	20020711	US 2000-751183	20001229
	US 6596460	B2	20030722		
PRAI	US 2000-751183		20001229		

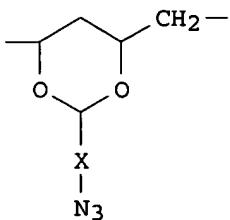
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002090566	ICM	G03F007-038
	NCL	430270100

GI



I



II

AB A polyvinyl acetal copolymer compound comprises the units A, B, C and D, where A = -CH<sub>2</sub>-CHOCOR- (R = H, C<sub>1</sub>-6-alkyl, -CH=CHCOOH, C<sub>6</sub>H<sub>5</sub>COOH) is present in an amount of 0.5 to 30 weight%; B = -CH<sub>2</sub>CHOH- is present in an amount

of 5 to 35 weight%; C is defined by the formula I (R<sub>1</sub> = C<sub>1</sub>-4-alkyl, optionally substituted by an acid, Ph, Z-NR<sub>2</sub>-CO-Y-COOH (Z = aliphatic, aromatic or araliph. spacer group; R<sub>2</sub> = H, aliphatic, aromatic, araliph. moiety; Y = saturated or unsatd. chain- or ring-shaped spacer group)) and present in an amount of 10 to 55 weight%, and may have one or more occurrences in the copolymer with various moieties R<sub>1</sub> independent of one another; D is defined by the formula II (X = C<sub>1</sub>-6-alkylene; 5 or 6 membered saturated carbocyclic moiety optionally substituted with C<sub>1</sub>-4-alkyl, C<sub>1</sub>-4-alkoxy, halogen; 5 or 6 membered saturated heterocyclic moiety; C<sub>6</sub>H<sub>5</sub>(R<sub>3</sub>)<sub>n</sub> (n = 0-4, R<sub>3</sub> = C<sub>1</sub>-4-alkyl, halogen, C<sub>1</sub>-4-alkoxy)) and present in an amount of 10 to 40 weight%. A radiation-sensitive composition useful in a lithog.

printing plate comprises (i) the above-described polyvinyl acetal copolymer; and (ii) a light-to-heat transformer compound. The object of the present invention is to provide polymers for radiation-sensitive compns. which ensure a good adhesion to normal aluminum substrates and thus lead to an acceptable number of prints produced without affecting ink receptivity.

ST lithog printing plate aluminum substrate  
photosensitive compn polyvinyl acetal

IT Polyvinyl butyrals

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(azido-benzals; radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. printing plate)

IT Lithographic plates

(radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. printing plate)

IT 459-57-4, 4-Fluoro benzaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)  
(in preparation of polymer radiation-sensitive compns. for lithog. printing plate)

IT 24173-36-2DP, 4-Azido benzaldehyde, cyclic acetals with poly(vinyl alc.)

RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(in preparation of polymer radiation-sensitive compns. for lithog.

STN search for 10765,797

printing plate)

IT 108-31-6DP, Maleic anhydride, reaction products with polyvinyl butyral and azido benzaldehyde or propion aldehyde  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. printing plate)

IT 7429-90-5, Aluminum, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(substrate; radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. printing plate)

L11 ANSWER 38 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:433299 CAPLUS  
DN 137:131996  
ED Entered STN: 10 Jun 2002  
TI Influence of resist components on image blur in a patterned positive-tone chemically amplified photoresist  
AU Houle, F. A.; Hinsberg, W. D.; Sanchez, M. I.; Hoffnagle, J. A.  
CS IBM Almaden Research Center, San Jose, CA, 95120, USA  
SO Journal of Vacuum Science & Technology, B: Microelectronics and Nanometer Structures (2002), 20(3), 924-931  
CODEN: JVTBD9; ISSN: 0734-211X  
PB American Institute of Physics  
DT Journal  
LA English  
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
AB Post-exposure bake-induced blurring of the latent image in a chemical amplified photoresist may limit the extendibility of this resist technol. to printing of nanoscale features. It had been proposed that blurring is caused by thermally assisted diffusion of photogenerated acid, however the authors exptl. and kinetic modeling investigations of coupled reaction-diffusion in a resist system consisting of a photoacid generator in poly(p-tert-butyloxycarbonyloxystyrene) (PTBOCST) have shown that the very high efficiency of acidolysis chemical at the edge of an exposed region is actually responsible for blurring. Studies of the role of added base and the impact of photoacid generator size on blur support this view. These previous studies were performed with a one-dimensional (1D) geometry. In order to test the relevance of the 1D blurring model to pattern formation, the authors have carried out new investigations of blurring in dense line-space patterns using the same PTBOCST resist systems as in the earlier work. Resist films were imprinted with 866 and 192 nm pitch gratings generated by interferometric lithog. using 257 nm light. The extent of deprotection over a range of doses and bake times at 85° C was measured by IR spectroscopy and compared to results of simulations of the bake process using the exptl. aerial image and kinetics determined in the previous work. Experiment and predictions are in good agreement in all cases, indicating that the one-dimensional kinetics are extendable to the two-dimensional case. This simulations permit visualization of the relationship between the acid latent image and the developable image that forms in the polymer, enabling a deeper appreciation of the influences of the resist components and of resist processing conditions on latent image transformations during post-exposure bake.  
ST image blur pos chem amplified lithog photoresist; thermal acid catalyzed deprotection photoresist imaging  
IT Positive photoresists  
(chemical-amplified; influence of resist components and processing conditions on latent image transformations and image blur in patterned

STN search for 10765,797

pos. chemical amplified photoresists)

IT Diffusion  
IR reflectance spectra  
(influence of resist components and processing conditions on latent image transformations and image blur in patterned pos. chemical amplified photoresists)

IT Alkoxycarbonylation kinetics  
(retro, photoacid catalyzed; influence of resist components and processing conditions on latent image transformations and image blur in patterned pos. chemical amplified photoresists)

IT Reaction kinetics  
(thermal; influence of resist components and processing conditions on latent image transformations during post-exposure bake and image blur in pos. chemical amplified photoresists)

IT 87261-04-9, Poly(p-tert-butyloxycarbonyloxystyrene)  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(influence of resist components and processing conditions on latent image transformations and image blur in patterned pos. chemical amplified photoresists)

IT 375-73-5, Perfluorobutanesulfonic acid 1493-13-6,  
Trifluoromethanesulfonic acid  
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); FORM (Formation, nonpreparative); PROC (Process); USES (Uses)  
(influence of resist components and processing conditions on latent image transformations and image blur in patterned pos. chemical amplified photoresists)

IT 2052-49-5, Tetrabutylammonium hydroxide  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(influence of resist components and processing conditions on latent image transformations and image blur in patterned pos. chemical amplified photoresists)

IT 157959-61-0, Bis-tert-butylphenyliodonium trifluoromethanesulfonate  
218151-20-3, Bis(tert-butylphenyl)iodonium perfluorobutanesulfonate\*\*  
\*  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(photoacid generator; influence of resist components and processing conditions on latent image transformations and image blur in patterned pos. chemical amplified photoresists)

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Burns, S; Proceedings of the 12th International Conference on Photopolymers 2001, P323
- (2) Capodeici, L; J Vac Sci Technol B 1995, V13, P2963
- (3) Croffie, E; J Vac Sci Technol B 1999, V17, P3339 CAPLUS
- (4) Croffie, E; Proc SPIE 2001, V4345, P983 CAPLUS
- (5) Dolphin, D; Tabulation of Infrared Spectral Data 1977
- (6) Dragnea, B; J Vac Sci Technol B 2001, V19, P142 CAPLUS
- (7) Flanagan, L; Macromolecules 1999, V32, P5337 CAPLUS
- (8) Hinsberg, W; J Phys Chem submitted
- (9) Hinsberg, W; J Vac Sci Technol B 1998, V16, P3689 CAPLUS
- (10) Hinsberg, W; Proc SPIE 1993, V1925, P43 CAPLUS
- (11) Hinsberg, W; Proc SPIE 2000, V3999, P148 CAPLUS
- (12) Hinsberg, W; Proceedings of the 12th International Conference on Photopolymers 2001, P249

STN search for 10765,797

- (13) Houle, F; J Vac Sci Technol B 2000, V18, P1874 CAPLUS
- (14) Houle, F; unpublished
- (15) Ito, H; J Photopolym Sci Technol 1998, V11, P379 CAPLUS
- (16) Ito, H; J Polym Sci A 1986, V24, P2971 CAPLUS
- (17) Ito, H; Proc SPIE 1997, V3678, P104
- (18) Krasnaperova, A; J Vac Sci Technol B 1994, V12, P3900
- (19) Macleod, H; Thin-Film Optical Filters 1989
- (20) McKean, D; J Polym Sci Part A 1989, V27, P3927 CAPLUS
- (21) Peterson, J; Proc SPIE 1995, V2438, P153
- (22) Postnikov, S; J Vac Sci Technol B 1999, V17, P3335 CAPLUS
- (23) Rogers, J; IBM Burlington unpublished
- (24) Schmid, G; Proc SPIE 2000, V3999, P675 CAPLUS
- (25) Schmid, G; Proc SPIE 2001, V4345, P1037 CAPLUS
- (26) Sekiguchi, A; Proc SPIE 1999, V3678, P985 CAPLUS
- (27) Wallraff, G; Chem Rev 1999, V99, P1801 CAPLUS
- (28) Wallraff, G; J Vac Sci Technol B 1994, V12, P3857 CAPLUS
- (29) Wallraff, G; Proceedings of the 12th International Conference on Photopolymers 2001, P375

L11 ANSWER 39 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:163804 CAPLUS  
DN 136:224280  
ED Entered STN: 06 Mar 2002  
TI Thermal digital \*\*\*lithographic printing plate  
IN Patel, Jayanti; Saraiya, Shahhikant; Savariar-Hauck, Celin; Huang, Jianbing; Mikell, Frederic; Shimazu, Ken-ichi; Merchant, Nishith  
PA Kodak Polychrome Graphics Llc, USA  
SO U.S., 16 pp., Cont.-in-part of U.S. 301,866.  
CODEN: USXXAM  
DT Patent  
LA English  
IC ICM G03F007-09  
NCL 430270100  
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6352811	B1	20020305	US 1999-469490	19991222
	US 6352812	B1	20020305	US 1999-301866	19990429
	EP 1506856	A2	20050216	EP 2004-78162	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	EP 1506857	A2	20050216	EP 2004-78163	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	WO 2001045958	A2	20010628	WO 2000-US42759	20001212
	WO 2001045958	A3	20020131		
	W: BR, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	BR 2000016716	A	20020903	BR 2000-16716	20001212
	EP 1263590	A2	20021211	EP 2000-992907	20001212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2003518264	T2	20030603	JP 2001-546484	20001212
	EP 1506983	A2	20050216	EP 2004-27317	20001212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A2	19990429		
	EP 1999-928429	A3	19990608		

STN search for 10765,797

US 1999-469490	A	19991222
EP 2000-992907	A3	20001212
WO 2000-US42759	W	20001212

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6352811	ICM G03F007-09 NCL 430270100	
US 6352811	ECLA B41C001/10A	
US 6352812	ECLA B41C001/10A	
AB	A thermal lithog. printing plate, which can be imaged by an IR emitting laser or by a thermal printing head, comprises a hydrophilic substrate, and a composite layer structure composed of two layer coatings. Preferably, the first layer of the composite comprises an aqueous developable polymer mixture containing a solubility inhibiting material and a photothermal conversion material. The second layer is ink receptive, insol. in the aqueous solution, and has one or more non-aqueous soluble polymers in it. The plate is exposed with an IR laser or a thermal print head, and upon aqueous development of the imaged plate, the exposed portions are removed to expose hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain the ink-receptive image areas. The second layer may also contain a photothermal conversion material. Alternatively, the composite layer may be free of photothermal conversion material when thermal imaging is carried out using a thermal printing head.	
ST	thermal lithog printing plate; pos working thermal image material thermog	
IT	Dyes (IR-absorbing; photothermal conversion material used in thermal digital lithog. printing plate)	
IT	Fluoropolymers, uses RL: TEM (Technical or engineered material use); USES (Uses) (MP 1100; thermal digital lithog. printing plate containing)	
IT	Phenolic resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (novolak; thermal digital lithog. printing plate containing)	
IT	Lithographic plates (thermal digital lithog. printing plate imaged by IR laser or thermal printing head)	
IT	Imaging (thermal; photothermal conversion material used in thermal digital lithog. printing plate)	
IT	25085-75-0, BKS 5928 RL: TEM (Technical or engineered material use); USES (Uses) (BKS 5928; thermal digital lithog. printing plate containing)	
IT	9004-38-0, CAP RL: TEM (Technical or engineered material use); USES (Uses) (CAP; thermal digital lithog. printing plate containing)	
IT	9039-25-2, LB 6564 RL: TEM (Technical or engineered material use); USES (Uses) (LB 6564; thermal digital lithog. printing plate containing)	
IT	9016-83-5, LB 744 RL: TEM (Technical or engineered material use); USES (Uses)	

STN search for 10765,797

(LB 744; thermal digital lithog. printing plate containing)  
IT 9002-84-0, MP 1100  
RL: TEM (Technical or engineered material use); USES (Uses) (MP 1100; thermal digital lithog. printing plate containing)  
IT 34402-71-6P 178098-73-2P 346587-49-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate for preparing resin used in thermal digital lithog. printing plate)  
IT 134127-48-3  
RL: TEM (Technical or engineered material use); USES (Uses) (photothermal conversion material and solubility inhibitor used in thermal digital lithog. printing plate)  
IT 5496-71-9 27029-76-1, PD 140A 401915-61-5, Spectra IR 830 402474-33-3, IR Sensi  
RL: TEM (Technical or engineered material use); USES (Uses) (photothermal conversion material used in thermal digital lithog. printing plate)  
IT 98-32-8 123-30-8, p-Aminophenol 868-77-9 2094-99-7 4083-64-1, p-Toluene sulfonyl isocyanate  
RL: RCT (Reactant); RACT (Reactant or reagent) (reactant for preparing resin used in thermal digital lithog. printing plate)  
IT 548-62-9, Crystal violet 2390-59-2, Ethyl violet 199444-11-6, KF 654B-PINA  
RL: TEM (Technical or engineered material use); USES (Uses) (solubility inhibitor used in thermal digital lithog. printing plate)  
IT 105060-43-3DP, reaction products with aminophenol 346587-46-0P 346587-47-1P 346587-48-2P 346587-50-6P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (thermal digital lithog. printing plate containing)  
IT 9004-70-0, E 950 9011-14-7, Poly(methylmethacrylate) 24936-68-3, Makrolon 3108, uses 25086-36-6, N 9P 42557-11-9, Silikophen P 50X 76169-06-7 184348-68-3 220970-44-5, Uravar FN6 220971-24-4, PMP 65 220971-25-5, PMP 92 402475-28-9 402489-58-1  
RL: TEM (Technical or engineered material use); USES (Uses) (thermal digital lithog. printing plate containing)

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; GB 1245924 1971
- (2) Anon; DE 2626769 1977 CAPLUS
- (3) Anon; GB 1546633 1979 CAPLUS
- (4) Anon; EP 0368327 1990 CAPLUS
- (5) Anon; DE 4231324 1993 CAPLUS
- (6) Anon; EP 0678380 A2 1995
- (7) Anon; JP 09034110 1995 CAPLUS
- (8) Anon; EP 0784233 1997 CAPLUS
- (9) Anon; EP 784233 1997 CAPLUS
- (10) Anon; WO 9739894 1997 CAPLUS
- (11) Anon; EP 0864419 1998
- (12) Anon; EP 0864420 1998 CAPLUS
- (13) Anon; EP 0901902 1999 CAPLUS
- (14) Anon; EP 0908779 1999 CAPLUS
- (15) Anon; EP 0909657 1999 CAPLUS
- (16) Anon; EP 0943451 1999 CAPLUS
- (17) Anon; WO 9911458 1999 CAPLUS

STN search for 10765,797

- (18) Anon; WO 9921715 1999 CAPLUS
- (19) Bassett; US 5145763 A 1992 CAPLUS
- (20) Bennett; US 6130026 A 2000 CAPLUS
- (21) Blanchet-Fincher; US 6066434 A 2000
- (22) Brinckman; US 3645733 A 1972 CAPLUS
- (23) Deboer; US 4973572 A 1990 CAPLUS
- (24) Deroover; US 6004728 A 1999 CAPLUS
- (25) Grunwald; US 5641608 A 1997 CAPLUS
- (26) Haley; US 5340699 A 1994 CAPLUS
- (27) Hase; US 5609993 A 1997 CAPLUS
- (28) Kamiya; US 5112743 A 1992 CAPLUS
- (29) Kubo; US 4308368 A 1981 CAPLUS
- (30) Lewis; US 5493971 A 1996
- (31) Parsons; US 6280899 B1 2001 CAPLUS
- (32) Sheriff; US 5858626 A 1999 CAPLUS
- (33) Shimazu; US 6294311 B1 2001 CAPLUS
- (34) Takahashi; US 5569573 A 1996 CAPLUS
- (35) Takeda; US 5858604 A 1999 CAPLUS
- (36) Toyama; US 4687727 A 1987 CAPLUS
- (37) van Damme; US 6153353 A 2000 CAPLUS
- (38) Verburgh; US 5536619 A 1996 CAPLUS
- (39) Vermeersch; US 6022667 A 2000 CAPLUS
- (40) Vermeersch; US 6083663 A 2000 CAPLUS
- (41) Vermeersch; US 6096481 A 2000 CAPLUS
- (42) Wang; US 5529891 A 1996 CAPLUS

L11 ANSWER 40 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:131259 CAPLUS  
DN 136:191734  
ED Entered STN: 20 Feb 2002  
TI Positive-working lithography printing plates for  
direct writing with infrared laser beams  
IN Oda, Akio; Nakamura, Ippei; Tsuchimura, Toshitaka  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 23 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-032  
ICS B41N001-14; G03F007-00; G03F007-004; G03F007-023  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002055446	A2	20020220	JP 2000-244159	20000811
	US 2002119392	A1	20020829	US 2001-925444	20010810
	US 6689534	B2	20040210		
PRAI	JP 2000-244159	A	20000811		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002055446	ICM	G03F007-032
	ICS	B41N001-14; G03F007-00; G03F007-004; G03F007-023
US 2002119392	ECLA	B41C001/10A

AB The printing plate comprises a support having a recording layer  
containing a water-insol. and alkaline-soluble F-containing polymer, e.g.  
novolak, and an  
IR absorbent. The plates are scratch resistant and have wide

STN search for 10765,797

developing latitude.

ST pos lithog printing plate direct writing; IR  
laser direct writing lithog plate; fluoropolymer  
IR adsorbent lithog plate

IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pos.-working lithog. printing plates with  
water-insol. and alkaline-soluble fluoropolymer layers for direct  
writing with IR laser beams)

IT Lithographic plates  
(presensitized, pos.-working; pos.-working lithog.  
printing plates with water-insol. and alkaline-soluble  
fluoropolymer layers for direct writing with IR laser  
beams)

IT 134127-48-3  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)  
(IR adsorbent; pos.-working lithog.  
printing plates with water-insol. and alkaline-soluble  
fluoropolymer layers for direct writing with IR laser  
beams)

IT 13429-24-8D, Hexafluoropropene dimer, ether with m-cresol-p-cresol-  
formaldehyde copolymer 27029-76-1D, m-Cresol-p-cresol-formaldehyde  
copolymer, ethers with fluorine-containing compds. 27029-76-1D,  
m-Cresol-p-cresol-formaldehyde copolymer, perfluoroctanoyl  
ether 52835-16-2D, ether with m-cresol-p-cresol-formaldehyde copolymer  
400615-48-7, Formaldehyde-3-(trifluoromethoxy)phenol copolymer  
400615-49-8, m-Cresol-pentafluorobenzaldehyde copolymer 400615-50-1,  
Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl  
methacrylate-1H,1H,2H,2H-perfluorohexyl acrylate copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pos.-working lithog. printing plates with  
water-insol. and alkaline-soluble fluoropolymer layers for direct  
writing with IR laser beams)

L11 ANSWER 41 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:63356 CAPLUS  
DN 136:126603  
ED Entered STN: 23 Jan 2002  
TI Supports and heat-sensitive lithographic  
printing plates using them  
IN Nishio, Kazuyuki; Kuroki, Takaaki; Hiraoka, Saburo; Kojima, Yasuo  
PA Konica Co., Japan  
SO Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM B41N001-14  
ICS G03F007-00; G03F007-09  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI JP 2002019315	A2	20020123	JP 2000-204258	20000705
PRAI JP 2000-204258		20000705		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	-----	-----
JP 2002019315	ICM	B41N001-14

ICS G03F007-00; G03F007-09

AB The supports have hydrophilic layers containing particles having the same bone structures with different particle size. The hydrophilic layers may contain self-film-forming fine particles and self-film-nonforming fine particles. The printing plates have hydrophilic layers containing self-film-forming fine particles and image-forming layers whose hydrophilicity is decreased by heat. The printing plates may have image-forming layers containing self-film-forming fine particles and particles which form hydrophobic surface regions by heat. Printing plates showing high hydrophilicity and good printability are obtained without etching.

ST lithog printing support hydrophilic layer  
printability; film forming fine particle lithog plate  
hydrophilicity

IT Silica gel, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Syloid 7000, Syloid P 403, hydrophilic layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT Acrylic polymers, uses  
**Fluoropolymers**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fine particles, hydrophilic layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT Lithographic plates  
(supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT Lithographic plates  
(supports; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(supports; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 390802-04-7P, Acrylonitrile-ethyl methacrylate-N-(2-hydroxyethyl)methacrylamide-lauryl acrylate-methacrylic acid-methyl methacrylate copolymer  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(binders in transfer layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 1344-28-1, Aluminasol 520, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(colloidal, fine particles, hydrophilic layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 1309-48-4, Magnesium oxide, uses 7631-86-9, Silica, uses 9002-84-0, AD 1 188653-13-6, Snowtex S  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fine particles, hydrophilic layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 9011-14-7, Jurymer MB-S 167396-56-7, Jurymer MB 10  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fine particles, image-forming layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 138988-50-8, Elastron BN 69

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)  
(image-forming layers; supports having hydrophilic layers for  
heat-sensitive lithog. plates with good  
printability)

IT 25038-59-9, Poly(ethylene terephthalate), uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(supports; supports having hydrophilic layers for heat  
-sensitive lithog. plates with good printability)

IT 9002-88-4  
RL: TEM (Technical or engineered material use); USES (Uses)  
(waxes, A 101, A 110, image-forming layers; supports having hydrophilic  
layers for heat-sensitive lithog. plates with good  
printability)

IT 391249-80-2, A 212 (wax)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(waxes, image-forming layers; supports having hydrophilic layers for  
heat-sensitive lithog. plates with good  
printability)

L11 ANSWER 42 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:900092 CAPLUS

DN 136:45708

ED Entered STN: 14 Dec 2001

TI Image-formation material and infrared absorber

IN Nakamura, Ippei

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 41 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B41M005-40

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

Section cross-reference(s): 25, 27, 28

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1162078	A2	20011212	EP 2001-112937	20010606
	EP 1162078	A3	20021218		
	EP 1162078	B1	20050209		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001347765	A2	20011218	JP 2000-169180	20000606
	US 2002015911	A1	20020207	US 2001-871724	20010604
	US 6727037	B2	20040427		
	US 2004175649	A1	20040909	US 2004-790775	20040303
PRAI	JP 2000-169180	A	20000606		
	US 2001-871724	A3	20010604		

Cited  
1449

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 1162078	ICM	B41M005-40
	EP 1162078	ECLA	B41C001/10A; B41M005/36S; B41M005/40F2; C09B023/00B; C09B023/00D; C09B023/08B; C09B023/08D
	US 2002015911	ECLA	B41C001/10A; C09B023/00D; C09B023/08B; C09B023/08D; B41M005/36S; B41M005/40F2; C09B023/00B
	US 2004175649	ECLA	B41C001/10A; B41M005/36S; B41M005/40F2; C09B023/00B; C09B023/00D; C09B023/08B; C09B023/08D

OS MARPAT 136:45708

AB Heat mode-applicable image-formation materials are described

STN search for 10765,797

which comprise a substrate carrying thereon an image-formation layer which contains an IR absorbing agent which has ≥1 surface orientation group in the mol. and for which the solubility of the layer in an alkaline aqueous solution is changed by action of radiation in the near-IR range. IR absorbing agents are also described which comprise, in a mol. thereof, a fluorine-containing substituent which have ≥5 fluorine atoms, or a polymethine chain of ≥5 carbon atoms and an alkyl group of ≥8 carbon atoms, the alkyl group being connected to the polymethine chain via any of nitrogen, oxygen and sulfur. Planog. printing plates including the heat mode-applicable image-formation materials are also described.

ST thermal image forming material IR absorber; planog printing plate image forming material IR absorber; IR sensitive image forming material IR absorber

IT Optical materials  
(IR absorbers; IR-sensitive image-forming materials and IR absorbers)

IT Photoimaging materials  
Recording materials

(IR-sensitive image-forming materials and IR absorbers)

IT IR materials  
(absorbers; IR-sensitive image-forming materials and IR absorbers)

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak; IR-sensitive image-forming materials and IR absorbers)

IT Lithographic plates  
(planog.; IR-sensitive image-forming materials and IR absorbers)

IT 75-36-5, Acetyl chloride 92-50-2, 2-(N-Ethylanilino)ethanol 98-59-9, p-Toluenesulfonyl chloride 108-24-7, Acetic anhydride 108-94-1, Cyclohexanone, reactions 121-44-8, Triethylamine, reactions 124-41-4, Sodium methoxide 335-64-8, Perfluoroctanoyl chloride 647-42-7 1640-39-7, 2,3,3-Trimethylindolenine 2885-00-9, Stearylmercaptan 34451-26-8, 1H,1H,2H,2H-Perfluoroctanethiol 70446-42-3 205744-92-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(IR-sensitive image-forming materials and IR absorbers)

IT 38954-40-4P 51740-38-6P 100609-71-0P 379671-80-4P 379671-81-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(IR-sensitive image-forming materials and IR absorbers)

IT 379671-75-7P 379671-77-9P 379671-79-1P 379671-83-7P 379671-85-9P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(IR-sensitive image-forming materials and IR absorbers)

IT 24979-70-2, Poly p-hydroxystyrene 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 162846-57-3 287925-54-6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(IR-sensitive image-forming materials and IR absorbers)

L11 ANSWER 43 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2001:788578 CAPLUS  
DN 135:336952

STN search for 10765,797

ED    Entered STN: 31 Oct 2001  
TI    Heat-sensitive lithographic plate containing  
      microcapsule  
IN    Kurihara, Masaaki; Takahashi, Motoaki  
PA    Asahi Chemical Industry Co., Ltd., Japan  
SO    Jpn. Kokai Tokkyo Koho, 15 pp.  
      CODEN: JKXXAF  
DT    Patent  
LA    Japanese  
IC    ICM B41N001-14  
      ICS G03F007-00; G03F007-004; G03F007-032  
CC    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
      Reprographic Processes)  
      Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI    JP 2001301348	A2	20011031	JP 2000-116152	20000418
PRAI JP 2000-116152		20000418		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001301348	ICM B41N001-14	ICS G03F007-00; G03F007-004; G03F007-032

AB    In the material comprising a support coated with a heat -sensitive layer containing microcapsules forming hydrophobic part by heating and a hydrophilic binder forming three-dimensionally crosslinked hydrophilic part, the microcapsules are formed as microcapsule dispersion and purified. The material showed improved printing durability, preventing background stain.

ST    heat sensitive lithog plate purified hydrophobic microcapsule; hydrophilic binder heat sensitive lithog plate; hollow fiber membrane filtration microcapsule purifn; centrifugation purifn microcapsule

IT    Lithographic plates  
      Microcapsules  
            (heat-sensitive lithog. plate containing purified hydrophobic microcapsule and hydrophilic binder)

IT    Membranes, nonbiological  
            (hollow-fiber; microcapsule purified by hollow fiver membrane filtration for heat-sensitive lithog. plate)

IT    Centrifugation  
            (microcapsule purified by centrifugation for heat-sensitive lithog. plate)

IT    Filtration  
            (microcapsule purified by hollow fiver membrane filtration for heat-sensitive lithog. plate)

IT    Fluoropolymers, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
            (microcapsule purified by hollow fiver membrane filtration for heat-sensitive lithog. plate)

IT    Polyurethanes, preparation  
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
            (microcapsule shell; heat-sensitive lithog. plate containing purified hydrophobic microcapsule and hydrophilic binder)

IT    25014-41-9, ACP 1010  
RL: NUU (Other use, unclassified); USES (Uses)  
            (ACP 1010; microcapsule purified by hollow fiver membrane filtration for heat-sensitive lithog. plate)

STN search for 10765,797

IT 141714-54-7P, Kayasorb IR 820B  
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
(Kayasorb IR 820B, IR absorbent; heat-sensitive lithog. plate containing purified hydrophobic microcapsule and hydrophilic binder)

IT 7440-44-0, Activated Carbon, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(activated; microcapsule purified by activated carbon for heat-sensitive lithog. plate)

IT 9005-37-2, Duckloid LF  
RL: REM (Removal or disposal); PROC (Process)  
(emulsifier; heat-sensitive lithog. plate containing purified hydrophobic microcapsule and hydrophilic binder)

IT 7446-70-0, Aluminum chloride, uses 7646-78-8, Tin chloride (SnCl<sub>4</sub>), uses  
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)  
(heat-sensitive lithog. plate containing purified hydrophobic microcapsule and hydrophilic binder)

IT 9003-01-4, Jurymer AC 10MP  
RL: DEV (Device component use); USES (Uses)  
(hydrophilic binder; heat-sensitive lithog. plate containing purified hydrophobic microcapsule and hydrophilic binder)

IT 40623-75-4P, Acrylic acid-2-acrylamido-2-methylpropanesulfonic acid copolymer  
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
(hydrophilic binder; heat-sensitive lithog. plate containing purified hydrophobic microcapsule and hydrophilic binder)

IT 24937-79-9, TP 113  
RL: NUU (Other use, unclassified); USES (Uses)  
(microcapsule purified by hollow fiber membrane filtration for heat-sensitive lithog. plate)

IT 369611-42-7P, Coronate L-glycidyl methacrylate copolymer 369611-43-8P, Glycidyl methacrylate-toluene diisocyanate-trimethylolpropane adduct (3:1) copolymer 369611-44-9P, Glycidyl methacrylate-toluene diisocyanate-trimethylolpropane adduct (3:1)-trimethylolpropane triacrylate copolymer 369611-45-0P, Coronate L-glycidyl methacrylate-trimethylolpropane triacrylate copolymer  
RL: DEV (Device component use); PNU (Preparation, unclassified); PUR (Purification or recovery); PREP (Preparation); USES (Uses)  
(microcapsule shell; heat-sensitive lithog. plate containing purified hydrophobic microcapsule and hydrophilic binder)

L11 ANSWER 44 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2001:780992 CAPLUS  
DN 135:318863  
ED Entered STN: 26 Oct 2001  
TI Hydrogenated ring-opening metathesis copolymers and process for producing the same  
IN Yamamoto, Yoshihiro; Sunaga, Tadahiro; Hamada, Tetsuya; Ikeda, Keiichi; Shibahara, Ritsuko; Io, Hirofumi; Ochiai, Takashi  
PA Mitsui Chemicals, Inc., Japan  
SO PCT Int. Appl., 110 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
IC ICM C08G061-06  
CC 35-7 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 38, 74, 76

STN search for 10765,797

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001079324	A1	20011025	WO 2001-JP3139	20010412
	W: CN, KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	JP 2001354756	A2	20011225	JP 2001-114075	20010412
	EP 1275676	A1	20030115	EP 2001-919897	20010412
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	US 2002165328	A1	20021107	US 2002-9565	20020328
	US 6800720	B2	20041005		
PRAI	JP 2000-111646	A	20000413		
	WO 2001-JP3139	W	20010412		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	WO 2001079324	ICM	C08G061-06
	EP 1275676	ECLA	C08G061/06; C08G061/08
	US 2002165328	ECLA	C08G061/08

AB The copolymers with good photo-sensitivity and resistance to heat , useful as pos. resists for high-resolution lithog. patterning of circuit boards, are based on specific cyclic olefin compds. bearing cyclic alkyl tertiary ester groups and cyclic olefin compds. bearing fused lactone ring, their hydrolyzed products or modified esters. Thus, dissolving 3,6-epoxy-1,2,3,6-tetrahydrophthalide and 8-(1'-ethylcyclopentoxy)carbonyltetracyclo[4.4.0.12,5.17,10]-3-dodecene in THF, adding W(N-2,6-Me2C6H3) (CHCHCMe2) (OC(CF3)2Me)2 (PMe3) catalyst, mixing at room temperature for 1 h, killing the reaction with Bu aldehyde and working up gave a metathesis polymer which was hydrogenated and combined with acid generator and other additive to give a composition for use as photoresist.

ST elec circuit board lithog patterning photoresist hydrogenated metathesis polymer

IT Positive photoresists  
Printed circuit boards  
(hydrogenated ring-opening metathesis copolymers and process for producing same)

IT Polymerization  
(metathetic; hydrogenated ring-opening metathesis copolymers and process for producing same)

IT 66003-78-9, Triphenylsulfonium trifluoromethylsulfonate 144317-44-2, Triphenylsulfonium perfluorobutanesulfonate  
RL: CAT (Catalyst use); USES (Uses)  
(catalyst; hydrogenated ring-opening metathesis copolymers and process for producing same)

IT 3174-74-1DP, esters with partially hydrolyzed tertiary cyclic alkyl ester-containing metathesis copolymers 368872-75-7DP, partially hydrolyzed and hydrogenated, optionally re-esterified with dihydropyran 368872-76-8DP, partially hydrolyzed and hydrogenated 368872-78-0DP, hydrogenated 368872-79-1DP, hydrogenated, hydrolyzed 368872-80-4DP, hydrogenated, hydrolyzed 368872-82-6DP, hydrogenated 368872-84-8DP, hydrogenated 368872-85-9DP, hydrogenated 368872-87-1DP, hydrogenated 368872-88-2DP, hydrogenated 368872-90-6DP, hydrogenated 368872-92-8DP, hydrogenated, partially hydrolyzed 368872-94-0DP, hydrogenated  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(hydrogenated ring-opening metathesis copolymers and process for

STN search for 10765,797

producing same)  
IT 368872-74-6DP, hydrogenated  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(photoresist; hydrogenated ring-opening metathesis copolymers and  
process for producing same)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Fuji Photo Film Co Ltd; JP 11327144 A 1999 CAPLUS  
(2) Mitsui Chemicals Ltd; JP 11171982 A 1999 CAPLUS

L11 ANSWER 45 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:375396 CAPLUS

DN 134:368358

ED Entered STN: 24 May 2001

TI Articles having imageable coatings for preparation of lithographic  
printing plates and electronic parts

IN Shimazu, Ken; Parsons, Gareth Rhodri; Riches, John David

PA Kodak Polychrome Graphics Company Ltd., USA

SO Eur. Pat. Appl., 27 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B41C001-10

ICS B41M005-36

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 74, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1101608	A1	20010523	EP 2000-310097	20001114
	EP 1101608	B1	20050119		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6300038	B1	20011009	US 1999-444125	19991119
PRAI	US 1999-444125	A	19991119		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

EP 1101608	ICM	B41C001-10
	ICS	B41M005-36
EP 1101608	ECLA	B41C001/10A; B41M005/36S
US 6300038	ECLA	B41C001/10A; B41M005/36S

AB The precursor coating comprises a substrate and a polymeric coating  
comprising a polymeric matrix (LB 6564) and polymeric particles  
[polyethylene and PTFE powder (Fluoroslip 525)], wherein the  
matrix is soluble in an organic solvent and the particles are insol. in the  
organic

solvent, the coating having the property that when imagewise  
heated and then subjected to an aqueous developer, heated  
regions of the layer are selectively removed by the aqueous developer leaving  
behind unheated regions.

ST coating precursor image lithog printing plate; elec  
part coating precursor PTFE particle; phenolic resin coating  
printing plate

IT Electric apparatus

Lithographic plates  
(articles having imageable coatings for preparation of lighog.  
printing plates and electronic parts)

STN search for 10765,797

IT Fluoropolymers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(particles, Shamrock SST 3D, Shamrock SST 4; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT Phenolic resins, uses  
Polyamides, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(particles; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 9016-83-5, Bakelite LB 744 9039-25-2, Bakelite LB 6564 199444-11-6, KF 654B-Pina  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 9002-88-4, HDPE  
RL: MOA (Modifier or additive use); USES (Uses)  
(particles, Shamrock S 395N5; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 9002-84-0, PTFE  
RL: MOA (Modifier or additive use); USES (Uses)  
(particles, Shamrock SST 3D, Shamrock SST 4; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 24937-16-4, Orgasol 2001UD NAT 2 340255-25-6, Fluoroslip 525  
RL: MOA (Modifier or additive use); USES (Uses)  
(particles; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 79-10-7D, Acrylic acid, polymers 9002-89-5, Poly(vinyl alcohol)  
9003-01-4, Poly(acrylic acid) 9003-05-8, Polyacrylamide 9003-53-6,  
Polystyrene 9004-34-6, Hydroxycellulose, uses 9032-53-5,  
Carboxycellulose 24937-72-2, Poly(maleic anhydride) 25014-12-4,  
Polymethacrylamide 25014-41-9, Polyacrylonitrile 25087-26-7,  
Poly(methacrylic acid) 25721-74-8, Polymaleimide 59269-51-1,  
Polyhydroxystyrene  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(polymeric matrix; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Agfa-Gevaert; EP 0832739 A 1998 CAPLUS  
(2) Kodak; EP 0689096 A 1995 CAPLUS

L11 ANSWER 46 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:299116 CAPLUS

DN 134:318728

ED Entered STN: 27 Apr 2001

TI Lithographic printing without using alkali developer

IN Nakayama, Takao; Mori, Nobumitsu; Nakamura, Takashi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS G03F007-004; G03F007-075; G03F007-11; G03F007-36; G03F007-42

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

STN search for 10765,797

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001117218	A2	20010427	JP 1999-299569	19991021
PRAI	JP 1999-299569		19991021		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 2001117218	ICM	G03F007-00
		ICS	G03F007-004; G03F007-075; G03F007-11; G03F007-36; G03F007-42

AB The method comprises imagewise exposure of a presensitized lithog plate having a metal oxide layer coated with fluoroalkylsilicons, followed by contacting water-thinned or lyophilic inks to the exposure areas to obtain printable ink images. After the printing, the plate is heated or irradiated with light after removal of the remaining inks to remove the fluoroalkylsilicon layer for repeated use. The method enables direct manufacture of pos.-working printing plates without using developers and the plates are easily recyclable.

ST lithog printing metal oxide fluoroalkyl silicon lamination; pos lithog printing alkali developer free

IT Lithographic plates  
Lithography

(lithog. printing without using alkali developer)

IT 675-62-7, Methyl-3,3,3-trifluoropropylidchlorosilane 335357-23-8

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(lithog. printing without using alkali developer)

IT 13463-67-7P, Titania, preparation 145035-13-8P, Cesium lanthanum niobium titanium oxide (CsLa<sub>2</sub>NbTi<sub>2</sub>O<sub>10</sub>)

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(lithog. printing without using alkali developer)

L11 ANSWER 47 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:819308 CAPLUS

DN 132:71387

ED Entered STN: 30 Dec 1999

TI Thermal imaging material for lithographic plate preparation

IN Shimazu, Ken-ichi; Patel, Jayanti; Saraiya, Shashikant; Merchant, Nishith; Savariar-Hauck, Celin; Timpe, Hans-joachim; McCullough, Christopher D.

PA Kodak Polychrome Graphics Llc, USA

SO PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9967097	A2	19991229	WO 1999-US12689	19990608
	W: JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6352812	B1	20020305	US 1999-301866	19990429
	JP 2002518715	T2	20020625	JP 2000-555763	19990608

STN search for 10765,797

EP 1506856	A2	20050216	EP 2004-78162	19990608
R: BE, DE, ES, FR, GB, IT, NL, SE				
EP 1506857	A2	20050216	EP 2004-78163	19990608
R: BE, DE, ES, FR, GB, IT, NL, SE				
PRAI US 1998-90300P	P	19980623		
US 1999-301866	A	19990429		
EP 1999-928429	A3	19990608		
WO 1999-US12689	W	19990608		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 9967097	ICM	B41M	
WO 9967097	ECLA	B41C001/10A	
US 6352812	ECLA	B41C001/10A	
AB	A thermal imaging material which can be imaged by imagewise exposure with an IR laser or a thermal head and suited for lithog. plate preparation comprises a hydrophilic substrate and a two-layer coating. The first layer of the coating comprises an aqueous solution-developable polymer mixture containing a photothermal conversion material which is contiguous to the hydrophilic substrate. The second layer of the coating comprises one or more non-aqueous solution-soluble polymers which are soluble or dispersible in a solvent which does not dissolve the first layer. The material is exposed with an IR laser or a thermal head and upon development of the imaged material in an aqueous solution, the exposed portions are removed exposing hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain ink-receptive image areas. The second layer may also contain a photothermal conversion material.		
ST	IR laser thermal imaging material lithog plate prepn		
IT	Lithographic plates (IR-laser-sensitive thermal imaging materials with two polymer layers on hydrophilic substrates for preparation of)		
IT	Thermal printing materials (IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)		
IT	Fluoropolymers, uses RL: TEM (Technical or engineered material use); USES (Uses) (MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)		
IT	Phenolic resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)		
IT	Carbon black, uses RL: TEM (Technical or engineered material use); USES (Uses) (Special Black 250; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)		
IT	Polyvinyl acetals RL: TEM (Technical or engineered material use); USES (Uses) (carboxy-containing, T 71; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)		
IT	Polyvinyl acetals RL: TEM (Technical or engineered material use); USES (Uses) (dimethylmaleimido-containing, AK 128; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer		

STN search for 10765,797

layers containing)

IT Recording materials  
(thermal, IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT 9011-14-7, Poly(methyl methacrylate)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(A 21; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-53-6, Polystyrene 9004-38-0, Cellulose acetate phthalate  
9004-70-0, E950 9010-88-2, Acryloid B-82 25608-33-7, Acryloid B-66  
27029-76-1, PD 140A 58229-85-9, Acryloid B-44 73546-46-0D, reaction products with mesitylenesulfonic acid 106209-33-0, SMA-1000  
134127-48-3 253270-56-3, Carboset 500 253272-47-8, Nega 107  
RL: TEM (Technical or engineered material use); USES (Uses)  
(IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9002-84-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 58748-38-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(National Starch 28-2930; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-35-4, SD 140  
RL: TEM (Technical or engineered material use); USES (Uses)  
(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 58206-31-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Scripset 540, Scripset 550; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

L11 ANSWER 48 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:802696 CAPLUS  
DN 132:36793  
ED Entered STN: 21 Dec 1999  
TI Fiber-reinforced plastic-made apparatus for use in the electrolytic treatment of lithographic plate supports  
IN Matsuura, Atsushi; Kakumoto, Atsushi; Uesugi, Akio  
PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N003-03  
ICS C25F007-00  
CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 47, 72, 74  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11348450	A2	19991221	JP 1998-162086	19980610
PRAI JP 1998-162086		19980610		
CLASS				
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES		
JP 11348450	ICM	B41N003-03		

ICS C25F007-00

AB The apparatus comprises a treatment tank filled with electrolyte liquid, where the tank has multiple electrodes and insulation plates between them along the tank peripheral surface, and an internal guiding roller having cylindrical shape in middle. The wall of the tank is constructed with a structural skeleton layer made from metal or fiber-reinforced plastic and a layer made from acid- and heat-resistant materials such as PVC for direct contact with electrolyte liquid. The guiding roller is constructed with a structural skeleton layer made from metal or fiber-reinforced and a layer made from acid- and heat-resistant materials such as PVC for direct contact with electrolyte liquid.

ST lithog printing plate support electrolytic treatment tank; fiber reinforced plastic electrolytic treatment tank; acid heat resistant fiber reinforced plastic tank

IT Ceramics  
Electrolytes  
Electrolytic cells  
Lithographic plates  
Nonwoven fabrics  
Tanks (containers)  
(fiber-reinforced plastic-made apparatus for use in electrolytic treatment of lithog. plate supports)

IT Fluoropolymers, uses  
Polythiophenylenes  
RL: DEV (Device component use); USES (Uses)  
(fiber-reinforced plastic-made apparatus for use in electrolytic treatment of lithog. plate supports)

IT Reinforced plastics  
RL: DEV (Device component use); USES (Uses)  
(fiber-reinforced; fiber-reinforced plastic-made apparatus for use in electrolytic treatment of lithog. plate supports)

IT 7429-90-5, Aluminum, uses 9002-86-2, PVC  
RL: DEV (Device component use); USES (Uses)  
(fiber-reinforced plastic-made apparatus for use in electrolytic treatment of lithog. plate supports)

L11 ANSWER 49 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:698292 CAPLUS  
DN 131:311489  
ED Entered STN: 02 Nov 1999  
TI Laminate film for printing and adhesive film using the same  
IN Sawamura, Shinya; Kogo, Yuichi; Mizuno, Seinosuke  
PA Dainippon Ink and Chemicals, Inc., Japan; Nippon Ply K. K.  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C09J007-02  
ICS B32B027-36; B41M001-30  
CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 74

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI JP 11302612	A2	19991102	JP 1998-110611	19980421
PRAI JP 1998-110611		19980421		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	-----	-----
JP 11302612	ICM	C09J007-02

STN search for 10765,797

ICS B32B027-36; B41M001-30

AB The title laminate film comprises a heat-resistant polyester film and a thermoplastic film(s) laminated on the heat-resistant polyester film via a temporary adhesive layer. The heat-resistant polyester film has a thickness of 12-800 µm. The temporary adhesive layer is made of polyethylene or polypropylene and prepared by extrusion coating. The temporary adhesive layer may be made of specific acrylic or urethane adhesives. The thermoplastic film shows specified optical characteristics and have a thickness of 1-200 µm. Color designs are printed on the laminate film by gravure, silk-screen, offset or ink-jet printings and then a double stick tape is laminated on the printed laminate film to form the adhesive film.

ST laminate film heat resistant polyester thermoplastic temporary adhesive

IT Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(heat-resistant support of laminate film for printing  
)

IT Adhesive films  
Gravure printing  
Ink-jet printing  
(laminate film for printing and adhesive film using the same)

IT Laminated plastics, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(laminate film for printing and adhesive film using the same)

IT Lithography  
(offset; laminate film for printing and adhesive film using the same)

IT Printing (nonimpact)  
(silk-screen; laminate film for printing and adhesive film using the same)

IT Acrylic polymers, uses  
Fluoropolymers, uses  
Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermoplastic films of laminate film for printing)

IT 9002-88-4, Polyethylene  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(temporary adhesive layer of laminate film for printing)

IT 9002-86-2, Polyvinylchloride  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermoplastic films of laminate film for printing)

L11 ANSWER 50 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:672335 CAPLUS  
DN 131:305170  
ED Entered STN: 22 Oct 1999  
TI Positive thermal imaging element for lithographic plate preparation  
IN Verschueren, Eric; Geerts, Peter  
PA Agfa-Gevaert N.V., Belg.  
SO Eur. Pat. Appl., 15 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM B41C001-10  
      ICS B41M005-36  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

## Reprographic Processes)

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 950516	A1	19991020	EP 1999-200509	19990223
	EP 950516	B1	20040506	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO	
	US 6340815	B1	20020122	US 1999-267636	19990315
	JP 2000131830	A2	20000512	JP 1999-103875	19990412
PRAI	EP 1998-201214	A	19980415		
	US 1998-89286P	P	19980615		

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 950516	ICM	B41C001-10
		ICS	B41M005-36
	EP 950516	ECLA	B41C001/10A; B41M005/36S
	US 6340815	ECLA	B41M005/36S

AB According to the present invention there is provided a pos. thermal imaging element for lithog. plate preparation having on a lithog. plate base with a hydrophilic surface a first layer including a polymer soluble in an aqueous alkaline developer and a top layer which is

IR-sensitive and unpenetrable by an aqueous alkaline developer wherein the first layer and the top layer may be one and the same layer, characterized in that the top layer contains a compound that increases the dynamic friction coefficient of the top layer to between 0.40 and 0.80.

ST pos thermal imaging element polymer lithog plate

IT Silsesquioxanes

RL: TEM (Technical or engineered material use); USES (Uses)  
(Me, Tospearl 105; pos. thermal imaging materials for lithog.  
plate preparation containing)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(PTFE modified polyethylene wax; pos. thermal imaging materials for  
lithog. plate preparation containing)

IT Polysiloxanes, uses

Polysiloxanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-, graft, Tego Glide 410; pos. thermal imaging  
materials for lithog. plate preparation containing)

IT Polyoxyalkylenes, uses

Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polysiloxane-, graft, Tego Glide 410; pos. thermal imaging materials  
for lithog. plate preparation containing)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(pos. thermal imaging materials for lithog. plate preparation  
containing)

IT Lithographic plates

(pos. thermal imaging materials with IR-sensitive top layers  
containing compds. for increasing dynamic friction coefficient for  
preparation of)

IT Thermal printing materials

(pos.; with IR-sensitive top layers containing compds. for  
increasing dynamic friction coefficient for lithog. plate preparation)

IT Recording materials

(thermal, pos.; with IR-sensitive top layers containing compds.)

STN search for 10765,797

for increasing dynamic friction coefficient for lithog. plate preparation)

IT 9002-84-0, PTFE 9002-88-4, Polyethylene  
RL: TEM (Technical or engineered material use); USES (Uses)  
(PTFE modified polyethylene wax; pos. thermal imaging materials for lithog. plate preparation containing)

IT 7727-43-7, Barium sulfate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Spezialsorte AI; pos. thermal imaging materials for lithog. plate preparation containing)

IT 7631-86-9, Aerosil 200, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(colloidal; pos. thermal imaging materials for lithog. plate preparation containing)

IT 78-10-4, Dynasil A 118-41-2, 3,4,5-Trimethoxybenzoic acid, uses  
9004-70-0, Nitrocellulose 25038-71-5, Ethylene-tetrafluoroethylene copolymer 86753-78-8, Solsperse 5000 100346-90-5, Alnovol SPN452 199297-67-1, Solsperse 28000 240813-58-5, Tego Wet 265 247078-78-0, Newkem TF 320  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pos. thermal imaging materials for lithog. plate preparation containing)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Agfa-Gevaert N V; GB 1245924 A 1971
- (2) Agfa Gevaert Nv; EP 0830941 A 1998
- (3) Agfa Gevaert Nv; EP 0864420 A 1998 CAPLUS
- (4) Gevaert-Agfa N V; FR 1561957 A 1969
- (5) Mitsubishi Chem Corp; EP 0823327 A 1998 CAPLUS
- (6) Smith, D; US 5448066 A 1995 CAPLUS

L11 ANSWER 51 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:640775 CAPLUS

DN 131:264817

ED Entered STN: 08 Oct 1999

TI Waterless lithographic plate

IN Ray, Kevin Barry; McCullough, Christopher David

PA Kodak Polychrome Graphics Co., Ltd., USA

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41C001-10

ICS B41M005-36; C08G008-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9950069	A1	19991007	WO 1999-GB979	19990329
	W: BR, CA, CN, JP, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1079973	A1	20010307	EP 1999-913479	19990329
	EP 1079973	B1	20030108		
	R: DE, GB				
	JP 2002509821	T2	20020402	JP 2000-541008	19990329
	US 6416932	B1	20020709	US 2000-669991	20000926
PRAI	GB 1998-6478	A	19980327		
	WO 1999-GB979	W	19990329		

STN search for 10765,797

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9950069	ICM	B41C001-10
	ICS	B41M005-36; C08G008-32
WO 9950069	ECLA	B41C001/10A; B41M005/36S; C08G008/32
US 6416932	ECLA	B41C001/10A; B41M005/36S; C08G008/32
AB	A method of producing a resist pattern on a substrate using a precursor comprising a coating composition which includes a heat-sensitive polymeric substance having functional groups Q thereon (wherein groups Q may be siloxane or optionally substituted fluoroalkyl groups) wherein groups Q cause the polymeric substance to have a reduced adhesive interaction with an ink for use in waterless lithog. printing compared to the polymeric substance in the absence of the groups, the method including the step of causing the patternwise application of heat to the coating composition and optional development thereby to define ink-accepting areas in heat-exposed areas and non-ink-accepting areas in nonexposed areas.	
ST	waterless lithog plate heat sensitive polymer compn; siloxane thermal imaging compn lithog plate; fluoroalkyl group polymer thermosensitive compn lithog plate	
IT	Thermal printing materials (laser-sensitive; containing IR-absorbing dyes and polymers with functional groups for waterless lithog. plate preparation)	
IT	Recording materials (thermal, laser-sensitive; containing IR-absorbing dyes and polymers with functional groups for waterless lithog. plate preparation)	
IT	Lithographic plates (waterless; laser-sensitive thermal imaging materials containing polymers with functional groups for preparation of)	
IT	9039-25-2, LB 6564 RL: TEM (Technical or engineered material use); USES (Uses) (LB 6564; laser-sensitive thermal imaging materials for waterless lithog. plate preparation containing polymers with functional groups and)	
IT	245113-67-1, LB 6564 pentadecafluorooctanoate RL: TEM (Technical or engineered material use); USES (Uses) (laser-sensitive thermal imaging materials for waterless lithog. plate preparation containing IR-absorbing dyes and)	
RE.CNT	11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD	
RE	(1) Hearson, J; WO 9921725 A 1999 CAPLUS (2) Hoechst Ag; EP 0164059 A 1985 CAPLUS (3) Horsell Graphic Ind Ltd; WO 9901795 A 1999 CAPLUS (4) Kodak Polychrome Graphics Llc; WO 9911458 A 1999 CAPLUS (5) Macdermid Inc; EP 0557138 A 1993 CAPLUS (6) Miller, G; US 5705322 A 1998 CAPLUS (7) Neos Co Ltd; JP 01056714 A 1989 CAPLUS (8) Neos Co Ltd; JP 01144411 A 1989 CAPLUS (9) Ricoh Kk; DE 2648278 A 1977 CAPLUS (10) Ricoh Kk; DE 4010275 A 1990 CAPLUS (11) Watanabe, Y; US 5200762 A 1993 CAPLUS	
L11	ANSWER 52 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN	
AN	1999:498632 CAPLUS	
DN	131:163384	
ED	Entered STN: 11 Aug 1999	
TI	Negative-type image recording material containing fluorocopolymer	
IN	Aoshima, Keitaro	

STN search for 10765,797

PA Fuji Photo Film Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 51 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-00  
ICS B41N001-14; G03F007-004; G03F007-038  
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11218903	A2	19990810	JP 1998-22404	19980203
PRAI	JP 1998-22404		19980203		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 11218903	ICM	G03F007-00
		ICS	B41N001-14; G03F007-004; G03F007-038

AB The material contains (A) a light- or heat-decomposable acid generator, (B) a crosslinking agent by an acid, (C) an alkali-soluble resin, (D) a UV absorber, and (E) a copolymer containing a aliphatic fluorogroup -containing monomer, a monomer selected from CH<sub>2</sub>:CA(COWR1SO<sub>2</sub>NHR<sub>2</sub>), CH<sub>2</sub>:CA(COWR1NHSO<sub>2</sub>R<sub>4</sub>), CH<sub>2</sub>:CA[CONR<sub>3</sub>(X)mY(OH)n], and CH<sub>2</sub>:CA[Z(X)mY(OH)n] [A = H, halogen, alkyl; W = O, NR<sub>3</sub>; R<sub>1</sub> = alkylene, arylene; R<sub>2</sub>, 3 = H, alkyl, aryl; R<sub>4-6</sub> = alkyl, aryl; Y, Z = arylene; X = divalent organic group comprising C, N, O, S, halogen, H; m = 0-1 integer; n = 1-3 integer], and a monomer selected from CH<sub>2</sub>:CA(COWR5), CH<sub>2</sub>:CA(OCOR6), CH<sub>2</sub>:CA(U), and I (U = cyano, aryl, alkoxy, aryloxy, acyloxymethyl, N-containing heterocyclic, CH<sub>2</sub>OCOR6). The material is useful for a lithog.

printing plate using a solid laser and a semiconductor laser.

ST neg image recording material fluorocopolymer; IR laser  
direct lithog printing plate

IT IR lasers

Lithographic plates  
(neg. image recording material containing fluorocopolymer using  
IR laser)

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(neg. image recording material containing fluorocopolymer using  
IR laser)

IT 236754-89-5P, 2-Ethylhexylmethacrylate-2-(perfluoroctyl  
)ethylacrylate-N-(4-sulfamoylphenyl)methacrylamide copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(neg. image recording material containing fluorocopolymer using  
IR laser)

L11 ANSWER 53 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:800085 CAPLUS

DN 130:59115

ED Entered STN: 22 Dec 1998

TI Methods of imaging and printing with positive-working IR  
-sensitive lithographic plate

IN Miller, Gary A.; Felker, Melanie A.; West, Paul R.; Gurney, Jeffery A.;  
Haley, Neil F.

PA Kodak Polychrome Graphics, L.L.C., USA

SO PCT Int. Appl., 34 pp.

STN search for 10765,797

CODEN: PIXXD2

DT Patent

LA English

IC ICM G03F007-32

ICS B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9854621	A1	19981203	WO 1998-US8779	19980430
	W: CA, CN, JP RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6083662	A	20000704	US 1997-866736	19970530
	EP 985166	A1	20000315	EP 1998-918883	19980430
	R: DE, FR, GB				
PRAI	US 1997-866736	A	19970530		
	WO 1998-US8779	W	19980430		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

WO 9854621	ICM	G03F007-32
	ICS	B41C001-10
WO 9854621	ECLA	B41C001/10A; G03F007/32A
US 6083662	ECLA	B41C001/10A; G03F007/32A

AB A pos.-working IR-sensitive lithog. plate is used to provide a pos. image without a post-exposure baking step and without any floodwise exposure steps. The lithog. plate includes a layer that is imageable using an IR laser. This layer consists essentially of a phenolic resin, an IR-absorbing compound, and a dissoln. inhibitor that is nonphotosensitive and is capable of providing sites for hydrogen bonding with the phenolic moieties of the binder resin. The lithog. plate is developed with an alkaline composition that includes an alkali metal silicate, a thickener, and a fluorosurfactant or phosphate ester hydrotrope.

ST pos IR lithog plate phenolic resin

IT Polyethers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(di-Me siloxane-; pos. IR-sensitive photoimaging compns. for  
lithog. plate preparation containing)

IT Polysiloxanes, uses

Polysiloxanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(di-Me, polyether-; pos. IR-sensitive photoimaging compns.  
for lithog. plate preparation containing)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(pos. IR-sensitive photoimaging compns. for lithog.  
plate preparation containing)

IT Lithographic plates

(pos. photoimaging compns. containing phenolic resins, IR  
-absorbing compds., and nonphotosensitive dissociation inhibitors for  
preparation of)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(pos. photoimaging compns. for lithog. plate preparation containing  
IR-absorbing compds., nonphotosensitive dissociation inhibitors  
and)

IT Photoimaging materials

STN search for 10765,797

(pos.; containing phenolic resins, IR-absorbing compds., and nonphotosensitive dissociation inhibitors for preparation of lithog. plates)

IT 56-81-5, 1,2,3-Propanetriol, uses 1310-58-3, Potassium hydroxide, uses 1312-76-1, Kasil 2130 37281-48-4, Triton H-66 57534-41-5, Zonyl FSN  
RL: TEM (Technical or engineered material use); USES (Uses)  
(developing solns. for pos. IR-sensitive photoimaging compns.  
for lithog. plate preparation containing)

IT 604-59-1, α-Naphthoflavone 143182-20-1, 4,6-Dimethyl-N,N'-diphenyl-  
1,3-benzenesulfonamide 202009-44-7, CG-21-1005  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pos. IR-sensitive photoimaging compns. for lithog.  
plate preparation containing)

IT 9016-83-5, Cresol-formaldehyde copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pos. photoimaging compns. for lithog. plate preparation containing  
IR-absorbing compds., nonphotosensitive dissociation inhibitors  
and)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Allied Corp; EP 0129106 A 1984 CAPLUS  
(2) Allied Corp; EP 0178495 A 1986 CAPLUS  
(3) Buhr, G; US 5292626 A 1994 CAPLUS  
(4) Eastman Kodak Co; EP 0836120 A 1998 CAPLUS  
(5) Fuji Photo Film Co Ltd; EP 0323836 A 1989 CAPLUS  
(6) Fuji Photo Film Co Ltd; EP 0347245 A 1989 CAPLUS  
(7) Fuji Photo Film Co Ltd; GB 2276729 A 1994 CAPLUS  
(8) Hoechst AG; DE 4445820 A 1996 CAPLUS  
(9) Matsushita Electric Ind Co Ltd; JP 02010355 A 1990 CAPLUS  
(10) Mitsubishi Chem Ind Ltd; JP 62024241 A 1987 CAPLUS  
(11) Shipley Co; EP 0097282 A 1984

L11 ANSWER 54 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:555608 CAPLUS

DN 129:195827

ED Entered STN: 01 Sep 1998

TI Manufacture of polymer composite parts, the composite parts, blankets using the parts, intaglio and lithographic printing plates, and manufacture of the printing plates

IN Iwasaki, Takeshi; Serisawa, Shogo; Nakamura, Hiromi

PA Toshiba Machine Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B007-02

ICS B32B027-30; B32B031-26; B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 55, 56, 57, 73

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10226005	A2	19980825	JP 1997-33693	19970218
PRAI JP 1997-33693		19970218		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 10226005	ICM	B32B007-02
	ICS	B32B027-30; B32B031-26; B41C001-10

STN search for 10765,797

AB The composite parts consist of polymer sheets of uniform thickness and sheet or plate as substrates having higher hardness and rigidity than the polymer sheets, which are heated to be softened and melted so that the sheets and the substrates are integrated and the surface of the sheets are smoothened. Further claimed are (A) the composite parts having the polymer surface layers with surface smoothness  $\leq 1 \mu\text{mR}_{\text{max}}$  and the hard and rigid substrates, (B) blankets for offset printing having the parts, (C) intaglio printing plates and lithog. plates having the parts using ceramics, glass, metals, or hard plastic substrates, and (D) manufacture of the printing plates including (a) laser ablation for forming ink-supporting drains on the polymer surface of the parts or (b) laser irradiation or applying of chems. on the polymer surface of the parts to form ink-supporting portions. The composite parts provide the printing plates with tack-free and highly smooth surface.

ST polymer sheet composite part; offset printing blanket polymer sheet composite; hard rigid substrate polymer sheet blanket; ceramic substrate polymer sheet blanket; glass substrate polymer sheet blanket; plastic substrate polymer sheet blanket; metal substrate polymer sheet blanket; intaglio printing plate polymer composite blanket; lithog plate polymer sheet composite blanket; laser irradn polymer sheet composite blanket; chem modification polymer sheet composite blanket

IT Glass substrates  
(composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT Laser ablation  
Laser radiation  
(for manufacture of offset printing plates using composite parts comprising polymer surface and hard and rigid substrate)

IT Printing plates  
(intaglio; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT Lithographic plates  
(offset; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT Polymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(silicon-containing; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT Ceramics  
(substrates; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT Metals, uses  
Plastics, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(substrates; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

L11 ANSWER 55 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1998:392240 CAPLUS  
DN 129:55453  
ED Entered STN: 26 Jun 1998  
TI Method of forming patterns in organic coatings films and layers  
IN Levenson, Eric O.; Waleh, Ahmad  
PA Anon, Inc., USA  
SO U.S., 9 pp.

STN search for 10765,797

CODEN: USXXAM  
DT Patent  
LA English  
IC ICM C08J007-04  
NCL 427510000  
CC 42-2 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 77  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5763016	A	19980609	US 1996-771392	19961219
PRAI US 1996-771392		19961219		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

US 5763016	ICM	C08J007-04
	NCL	427510000

US 5763016 ECLA G03F007/00; G03F007/26D; G03F007/38

AB The method, for preparation of a pattern in organic coatings, films, and layers including (non) photosensitive material which is, e.g., useful in manufacturing of semiconductor wafers and devices, is carried out by treating a substrate to a precursor chemical or precursor phys. treatment, placing the substrate in a chamber, purging the chamber with a dry gas (e.g., N), introducing a vapor consisting essentially of water-free, gaseous SO<sub>3</sub> into the chamber, allowing an appropriate time to reaction the SO<sub>3</sub> and the coating, exposing substrate to an end-point chemical or phys. treatment and treating the substrate to a subsequent chemical or phys. treatment.

ST coating process pattern semiconductor device; chem phys precursor treatment; sulfur trioxide treatment pattern forming process

IT Semiconductor materials

(Group IIIA element pnictide; method of forming patterns in organic coatings films and layers)

IT Alcohols, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)  
(aliphatic, treatment; method of forming patterns in organic coatings films and layers)

IT Metals, uses

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(complex, mask coatings; method of forming patterns in organic coatings films and layers)

IT Ethers, uses

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(cyclic, perfluorinated, organic dielec. consist; method of forming patterns in organic coatings films and layers)

IT Polyoxyarylenes

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(ethers, organic dielec. consist; method of forming patterns in organic coatings films and layers)

IT Paints

Photoresists  
(mask coating; method of forming patterns in organic coatings films and layers)

IT Polymers, uses

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(mask coating; method of forming patterns in organic coatings films and layers)

STN search for 10765,797

- IT Photoimaging materials
  - (mask coatings; method of forming patterns in organic coatings films and layers)
- IT Coating process
  - Heat treatment
  - Liquid crystal displays
  - Magnetic recording heads
  - Optical imaging devices
  - Photomasks (lithographic masks)
  - Printed circuit boards
  - Semiconductor devices
    - (method of forming patterns in organic coatings films and layers)
- IT Alloys, uses
  - Group IVA elements
  - Group IVB elements
  - RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
    - (method of forming patterns in organic coatings films and layers)
- IT Fluoropolymers, uses
  - Polyamides, uses
  - Polyimides, uses
  - RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
    - (organic dielec. consist; method of forming patterns in organic coatings films and layers)
- IT Polyimides, uses
  - Polyimides, uses
  - RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
    - (polyamide-, organic dielec. consist; method of forming patterns in organic coatings films and layers)
- IT Polyamides, uses
  - Polyamides, uses
  - RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
    - (polyimide-, organic dielec. consist; method of forming patterns in organic coatings films and layers)
- IT Polyquinoxalines
  - RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
    - (polyphenylquinoxalines, organic dielec. consist; method of forming patterns in organic coatings films and layers)
- IT Steam
  - (process gases; method of forming patterns in organic coatings films and layers)
- IT Acoustic devices
  - Electromagnetic wave
  - Gases
    - IR radiation
    - Lasers
    - Solvents
    - UV radiation
      - (treatment; method of forming patterns in organic coatings films and layers)
- IT 1303-00-0, Gallium arsenide, uses 7440-21-3, Silicon, uses 25722-33-2, Parylene
  - RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
    - (method of forming patterns in organic coatings films and layers)
- IT 7446-11-9P, Sulfur trioxide, preparation

STN search for 10765,797

RL: IMF (Industrial manufacture); PREP (Preparation)  
(method of forming patterns in organic coatings films and layers)  
IT 7440-44-0D, Carbon, fluorinated, uses 9002-84-0, PTFE 25038-76-0,  
Polynorbornene 25135-16-4, Polynaphthalene 53761-77-6D,  
Perfluorocyclobutene homopolymer, arom ether  
RL: DEV (Device component use); PEP (Physical, engineering or chemical  
process); PROC (Process); USES (Uses)  
(organic dielec. consist; method of forming patterns in organic coatings  
films and layers)  
IT 7440-37-1P, Argon, preparation 7727-37-9P, Nitrogen, preparation  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(process gases; method of forming patterns in organic coatings films and  
layers).  
IT 7722-84-1, Hydrogen peroxide, uses 7782-44-7, Oxygen, uses 10024-97-2,  
Nitrous oxide, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(process gases; method of forming patterns in organic coatings films and  
layers)  
IT 67-64-1P, 2-Propanone, preparation 7732-18-5P, Water, preparation  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(treatment; method of forming patterns in organic coatings films and  
layers)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; Semiconductor International 1990, P83
- (2) Anon; Semiconductor International 1994, P61
- (3) Anon; Semiconductor International 1996, P44
- (4) Grebinski; US 4778536 1988
- (5) Gupta; US 5037506 1991 CAPLUS
- (6) Kozacka; US 4179071 1979
- (7) Nimerick; US 4669544 1987 CAPLUS
- (8) Stanley, W; Process Technology 1986, V1, P564
- (9) Tanaka; US 5158100 1992
- (10) Walles; US 4915912 1990 CAPLUS
- (11) Walles; US 5030399 1991 CAPLUS

L11 ANSWER 56 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:226979 CAPLUS

DN 128:328790

ED Entered STN: 22 Apr 1998

TI Lithographic printing plate with microparticle

IN Katano, Yasuo; Morikawa, Minoru

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-26

ICS B05D005-04; B05D007-04; B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10095167	A2	19980414	JP 1996-271551	19960920
PRAI JP 1996-271551		19960920		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

JP 10095167	ICM	B41M005-26
-------------	-----	------------

STN search for 10765,797

      ICS     B05D005-04; B05D007-04; B41M005-00  
AB    In the title plate for forming images using contact angle changes of a recording layer upon heat application, the recording layer contains microparticles with a volume average particle size of ≤4 μm.  
ST    lithog printing plate microparticle contact angle  
IT    Silsesquioxanes  
      RL: DEV (Device component use); USES (Uses)  
         (Me; lithog. printing plate with microparticle)  
IT    Lithographic plates  
      (lithog. printing plate with microparticle)  
IT    Fluoropolymers, uses  
      Polyurethanes, uses  
      RL: DEV (Device component use); USES (Uses)  
         (lithog. printing plate with microparticle)  
IT    9011-14-7, Polymethyl methacrylate  
      RL: DEV (Device component use); USES (Uses)  
         (lithog. printing plate with microparticle)

L11 ANSWER 57 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1997:610023 CAPLUS  
DN 127:313155  
ED Entered STN: 24 Sep 1997  
TI Image-forming material having two-phase layer with hydrophobic photopolymerizable dispersion  
IN Van Damme, Marc; Vermeersch, Joan; Podszun, Wolfgang; Lui, Norbert  
PA Agfa Gevaert N. V., Japan  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM G03F007-11  
      ICS G03F007-00; G03F007-027; G03F007-26  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09236926	A2	19970909	JP 1997-52536	19970221
	JP 2894552	B2	19990524		
	EP 791857	A1	19970827	EP 1997-200352	19970210
	EP 791857	B1	20001115		
	R: DE, FR, GB				
	US 5922507	A	19990713	US 1997-805940	19970225
PRAI	EP 1996-200482	A	19960226		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 09236926	ICM	G03F007-11
		ICS	G03F007-00; G03F007-027; G03F007-26
	EP 791857	ECLA	G03F007/004F; G03F007/027
	US 5922507	ECLA	G03F007/004F; G03F007/027

AB The material contains, on a support, a 2-phase layer which comprises a dispersed hydrophobic photopolymerizable phase possessing polyfunctional monomers having perfluoroalkyl or perfluoroalkenyl groups and a hydrophilic continuous phase. The material is imagewise exposed and heat-treated to give a lithog. printing plate. The material is developed by only heat treatment and a high quality lithog. printing plate is obtained therefrom.

STN search for 10765,797

ST presensitized lithog plate **perfluoroalkyl**  
polyfunctional monomer; hydrophobic photopolymerizable dispersion  
lithog plate; hydrophilic phase presensitized lithog  
plate

IT **Fluoropolymers, preparation**  
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP  
(Preparation); USES (Uses)  
(presensitized lithog. plate material having hydrophobic  
photopolymerizable dispersion phase and hydrophilic phase)

IT **Lithographic plates**  
(presensitized; presensitized lithog. plate material having  
hydrophobic photopolymerizable dispersion phase and hydrophilic phase)

IT 9003-20-7D, hydrolyzed 110736-47-5, Mowiol 66-100  
RL: DEV (Device component use); USES (Uses)  
(presensitized lithog. plate material having hydrophobic  
photopolymerizable dispersion phase and hydrophilic phase)

IT 184474-72-4P 184474-75-7P  
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP  
(Preparation); USES (Uses)  
(presensitized lithog. plate material having hydrophobic  
photopolymerizable dispersion phase and hydrophilic phase)

IT 184474-68-8P 184474-69-9P  
RL: PNU (Preparation, unclassified); PREP (Preparation)  
(presensitized lithog. plate material having hydrophobic  
photopolymerizable dispersion phase and hydrophilic phase)

IT 559-40-0, **Perfluorocyclopentene** 1584-03-8, **Perfluoro**  
-2-methyl-2-pentene  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with glycerin methacrylate)

IT 28497-59-8, Glycerin dimethacrylate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with **perfluoroalkenyl** compound)

L11 ANSWER 58 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1997:265410 CAPLUS  
DN 126:257069  
ED Entered STN: 25 Apr 1997  
TI Recording material containing **fluoropolymers** and urethane binder  
resins  
IN Katano, Yasuo; Tanaka, Shinji; Kawakubo, Toshio; Morikawa, Minoru; Komai,  
Hiromichi; Ito, Katsuji; Myazaki, Nobuyuki  
PA Ricoh KK, Japan; Asahi Glass Co Ltd  
SO Jpn. Kokai Tokkyo Koho, 16 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41M005-00  
ICS B41M005-26  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09052437	A2	19970225	JP 1995-228590	19950814
	JP 3451279	B2	20030929		
PRAI	JP 1995-228590		19950814		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	-----	-----

STN search for 10765,797

JP 09052437 ICM B41M005-00  
ICS B41M005-26

AB A recording layer of the recording material contains ≥2 types of polymers, in which ≥1 type of the polymers contains F in the sidechain and is able to change the recess contact angle, and the other type of the polymer is a binder polymer such as a polyurethane resin to form a hard film. The recording material decreases the recess contact angle when it contacts a liquid under a heated condition. The recording material provided printing durability when it was used as a lithog. printing plate.

ST recording material fluoropolymer urethane binder resin; lithog printing plate recording later; ress contact angle lithog printing plate

IT Lithographic plates  
(offset; recording material containing fluoropolymer and urethane binder resin)

IT Polyesters, uses  
Polyurethanes, uses  
RL: DEV (Device component use); USES (Uses)  
(recording material containing fluoropolymer and urethane binder resin)

IT 75-01-4D, Vinyl chloride, polymer with perfluoroalkyl acrylate  
79-10-7D, Acrylic acid, fluoroalkyl ester, polymer 4813-57-4D,  
Stearyl acrylate, polymer with perfluoroalkyl acrylate  
9003-08-1, Melamine-formaldehyde copolymer 26044-94-0, Isobutyl methacrylatemethyl methacrylate copolymer 188618-63-5  
RL: DEV (Device component use); USES (Uses)  
(recording material containing fluoropolymer and urethane binder resin)

L11 ANSWER 59 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1996:529267 CAPLUS  
DN 125:154467  
ED Entered STN: 03 Sep 1996  
TI Manufacture of offset printing blanket and fluoropolymer - or silicone-coated vulcanized paper for it  
IN Hariguchi, Hideki; Iida, Goro; Iwasaki, Yoshio  
PA Mitsubishi Paper Mills Ltd, Japan; Meiji Gomu Kasei Kk  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N010-00  
ICS D21H027-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 43

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08175047	A2	19960709	JP 1994-337161	19941226
JP 2977014	B2	19991110		
PRAI JP 1994-337161		19941226		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08175047	ICM	B41N010-00
	ICS	D21H027-00

AB The blanket is manufactured by forming a surface rubber layer as a printing face on ≥1-layered support, directly laminating a

STN search for 10765,797

sulfidized paper on the rubber layer, followed by rolling it, heating to vulcanize the rubber layer, removing the vulcanized paper, and polishing the surface of the rubber layer. The vulcanized paper shows its surface pH  $\geq 6.0$  and/or is coated with a  $\geq 0.2$  g/m<sup>2</sup> fluoropolymer or silicone layer. The blanket was manufactured without using talc.

ST printing blanket offset vulcanized paper; silicone coating vulcanized paper printing blanket; fluoropolymer coating vulcanized paper printing blanket; talc free printing blanket offset manuf

IT Siloxanes and Silicones, uses  
RL: DEV (Device component use); USES (Uses)  
(manufacture of offset printing blanket by using fluoropolymer- or silicone-coated vulcanized paper)

IT Paper  
(vulcanized; manufacture of offset printing blanket by using fluoropolymer- or silicone-coated vulcanized paper)

IT Rubber, synthetic, uses  
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(vulcanized; manufacture of offset printing blanket by using fluoropolymer- or silicone-coated vulcanized paper)

IT Lithographic plates  
(offset, blankets; manufacture of offset printing blanket by using fluoropolymer- or silicone-coated vulcanized paper)

IT 70407-12-4, Asahiguard AG 530  
RL: DEV (Device component use); USES (Uses)  
(manufacture of offset printing blanket by using fluoropolymer- or silicone-coated vulcanized paper)

L11 ANSWER 60 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1995:746114 CAPLUS  
DN 123:156334  
ED Entered STN: 19 Aug 1995  
TI Method for preparation of printing plate by electrophotographic process and apparatus for use therein.  
IN Kato, Eiichi; Nakazawa, Yusuke; Osawa, Sadao  
PA Fuji Photo Film Co., Ltd., Japan  
SO Eur. Pat. Appl., 125 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM G03G013-28  
ICS G03G005-147  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 632338	A2	19950104	EP 1994-109303	19940616
	EP 632338	A3	19960313		
	EP 632338	B1	19991027		
	R: DE, GB				
	JP 07005727	A2	19950110	JP 1993-169846	19930617
	JP 3315207	B2	20020819		
	JP 07064356	A2	19950310	JP 1993-232181	19930826
	US 5620822	A	19970415	US 1994-262029	19940617
PRAI	JP 1993-169846	A	19930617		
	JP 1993-232181	A	19930826		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES				
EP 632338	ICM	G03G013-28				
	ICS	G03G005-147				
EP 632338	ECLA	G03G013/28				
AB	<p>A method for preparation of a printing plate by an electrophotog. process comprising forming a peelable transfer layer mainly containing a resin capable of being removed upon a chemical reaction treatment on the surface of an electrophotog. light-sensitive element, forming a toner image on the transfer layer by an electrophotog. process, heat-transferring the toner image together with the transfer layer onto a receiving material a surface of which is capable of providing a hydrophilic surface suitable for lithog. printing at the time of printing, and removing the transfer layer on the receiving material upon the chemical reaction treatment, wherein prior to or simultaneously with the formation of transfer layer a compound which contains a F atom and/or Si atom is applied to the surface of electrophotog. light-sensitive element to improve releasability of the surface of electrophotog. light-sensitive element. The method continuously provides printing plates excellent in image qualities in a stable manner and is suitable for a scanning exposure system using a laser beam. An apparatus suitable for performing the present method is also described.</p>					
ST	printing plate electrophotog release layer; surfactant silicon fluoro compd					
IT	Electrophotographic photoconductors and photoreceptors Printing plates (preparation of printing plate by electrophotog. process)					
IT	Fluoropolymers Siloxanes and Silicones, uses RL: DEV (Device component use); USES (Uses) (preparation of printing plate by electrophotog. process)					
IT	Siloxanes and Silicones, uses RL: DEV (Device component use); USES (Uses) (di-Me, carboxy-terminated, preparation of printing plate by electrophotog. process)					
IT	9016-00-6D, Poly[oxy(dimethylsilylene)], di-Me RL: DEV (Device component use); USES (Uses) (3-hydroxypropyl Me, ethylene oxide-graft; preparation of printing plate by electrophotog. process)					
IT	25766-25-0	26936-24-3	27155-22-2	58258-12-1	65697-21-4	
	65697-22-5	82030-84-0	Surflon S 141	91105-71-4	Surflon S 382	
	99031-41-1	144070-79-1	163655-70-7	163916-22-1	163916-23-2	
	163916-24-3	163916-26-5D	Fluoride and methylterminated		163916-27-6	
	166594-70-3	166594-72-5	166594-74-7	166594-75-8	166594-76-9	
	166594-77-0	166594-78-1	166594-80-5	166594-81-6	166594-82-7	
	166594-83-8	166594-84-9	166594-85-0	166594-86-1	166594-88-3	
	166594-90-7	166594-92-9	173611-09-1			
	RL: DEV (Device component use); USES (Uses) (preparation of printing plate by electrophotog. process)					
IT	158312-76-6P	166594-20-3P	166594-21-4P	166594-23-6P	166594-24-7P	
	166594-25-8P	166594-27-0P	166594-29-2P	166594-31-6P	166594-32-7P	
	166594-34-9P	166594-36-1P	166594-37-2P	166594-38-3P	166594-39-4P	
	166594-41-8P	166594-43-0P	166594-44-1P	166594-47-4P	166594-48-5P	
	166594-49-6P	166594-50-9P	166594-51-0P	166594-52-1P	166594-54-3P	
	166594-55-4P	166594-56-5P	166594-58-7P	166594-60-1P	166594-61-2P	
	166594-62-3P	166594-63-4P	166594-66-7P	166594-67-8P	166594-68-9P	
	166594-69-0P	166656-23-1P	176762-58-6P			
	RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (release layer; preparation of printing plate by electrophotog.					

STN search for 10765,797

process)

L11 ANSWER 61 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1994:446656 CAPLUS  
DN 121:46656  
ED Entered STN: 23 Jul 1994  
TI Lithographic plate material for thermographic platemaking  
IN Nakajima, Tsutomu; Momyama, Ritsuko  
PA Ricoh Kk, Japan  
SO Jpn. Kokai Tokkyo Koho, 18 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41M005-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05246133	A2	19930924	JP 1992-84564	19920306
	JP 3219299	B2	20011015		
PRAI	JP 1992-84564		19920306		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05246133	ICM	B41M005-00

AB In a recording material whose recording layer material shows a decrease in recessing contact angle upon heating in the presence of a liquid, the recording layer is provided with projections and is based on a compound having F-containing side chains, the material is a blend of polymers  $\geq 1$  of which contains F-containing side chains, or the recording layer consists of fine particles of the above recording material deposited on an elastic sheet. The F-containing compound is a homo- or copolymer of CH<sub>2</sub>:CR<sub>1</sub>CO<sub>2</sub>R<sub>2</sub> [R<sub>1</sub> = H, Me; R<sub>2</sub> = F-containing group], CH<sub>2</sub>:CR<sub>1</sub>OCOR<sub>2</sub> [R<sub>1</sub> = same as above; R<sub>2</sub> = F-containing group], CH<sub>2</sub>:CR<sub>1</sub>C(O)R<sub>2</sub> [R<sub>1</sub> = same as above; R<sub>2</sub> = F-containing group], CH<sub>2</sub>:CR<sub>1</sub>OR<sub>2</sub> [R<sub>1</sub> = same as above; R<sub>2</sub> = F-containing group], or CH<sub>2</sub>:CR<sub>1</sub>CONHR<sub>2</sub> [R<sub>1</sub> = same as above; R<sub>2</sub> = F-containing group]. The material provides high d. prints.

ST lithog plate material thermog

IT Lithographic plates

(materials, thermog., containing fluorine-containing polymer)

IT Fluoropolymers

RL: PREP (Preparation)

(preparation of, thermog. lithog. plate material from)

IT 25639-21-8P, Stearyl methacrylate homopolymer 26338-99-8P 30660-58-3P  
31074-80-3P 74049-08-4P 88233-95-8P 88992-72-7P 90718-04-0P  
93705-98-7P 104242-01-5P 105134-96-1P 110453-15-1P 118036-79-6P  
153973-31-0P 156169-38-9P 156169-39-0P 156169-40-3P

RL: PREP (Preparation)

(preparation of, thermog. lithog. plate material from)

L11 ANSWER 62 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:52933 CAPLUS

DN 114:52933

ED Entered STN: 09 Feb 1991

TI Waterless lithographic plate material with fluororesin layer

IN Suzuki, Norihito; Nakajima, Akihisa; Tomiyasu, Hiroshi; Kasakura, Akio  
PA Konica Co., Japan; Mitsubishi Kasei Corp.

STN search for 10765,797

SO Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00  
ICS G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02134636	A2	19900523	JP 1988-288129	19881115
PRAI	JP 1988-288129		19881115		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	JP 02134636	ICM	G03F007-00
		ICS	G03F007-09

AB The title materials comprise a photosensitive layer and a layer containing a fluororesin having functional groups capable of combining to those of the compds. in the photosensitive layer by exposure to light. The materials can be developed by developing solns. without F, and provide printing plates with good durability. Thus, an Al plate was coated with a photosensitive layer and with a fluororesin layer containing 1H,1H,2H,2H-heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer crosslinked by 2-methacryloyloxyethyl isocyanate, and Coronate EH (polyisocyanate), and heat-treated to give a waterless lithog. plate.

ST waterless lithog plate fluororesin

IT Urethane polymers, uses and miscellaneous

RL: USES (Uses)

(lithog. plate using)

IT Lithographic plates

(waterless, with fluororesin layer, for good durability)

IT 868-77-9D, 2-Hydroxyethyl methacrylate, heptadecafluorodecyl methacrylate-maleic anhydride-Me methacrylate copolymer treated with 2094-99-7D, m-Isopropenyl- $\alpha,\alpha$ -dimethylbenzyl isocyanate, heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer treated with 99038-07-0D, m-isopropenyl- $\alpha,\alpha$ -dimethylbenzyl isocyanate-treated 131026-34-1D, glycidyl methacrylate-treated

RL: USES (Uses)

(lithog. plate fluororesin layer using)

IT 106-91-2D, Glycidyl methacrylate, acrylic fluoropolymer treated with 113318-55-1D, Heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer, glycidyl methacrylate-treated 128319-75-5D, 2-hydroxyethyl methacrylate-treated 131005-31-7, Allyl methacrylate-heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer

RL: USES (Uses)

(lithog. plate using)

IT 131431-65-7

RL: USES (Uses)

(lithog. plate using crosslinked)

L11. ANSWER 63 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1990:641546 CAPLUS

DN 113:241546

ED Entered STN: 22 Dec 1990

TI Waterless lithographic plate materials with photosensitive layer

STN search for 10765,797

and fluororesin layer  
IN Nakajima, Akihisa; Suzuki, Norihito; Tomiyasu, Hiroshi; Kasakura, Akio  
PA Konica Co., Japan; Mitsubishi Kasei Corp.  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-038  
      ICS G03F007-00; G03F007-027  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

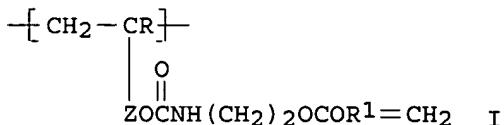
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02115850	A2	19900427	JP 1988-270119	19881026
PRAI JP 1988-270119		19881026		

CLASS  
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 02115850	ICM	G03F007-038
	ICS	G03F007-00; G03F007-027

GI



AB The title materials comprise a support with coatings of a photosensitive layer containing a polymer I [R, R<sub>1</sub> = H, Me; Z = (substituted) phenylene, a carboxyl having a phenylene, a C<sub>1</sub>-10 (halogenated) hydrocarbon, or a polyether group as its ester group, amido] and a photopolymn. initiator and a fluororesin layer. The photosensitive layer shows good adhesion to the resin layer, and the materials have good photosensitivity. Thus, an Al plate with a primer layer was coated with a composition containing

a Me methacrylate-2-hydroxyethyl methacrylate-2-isocyanatoethyl methacrylate copolymer and benzophenone and subsequently with a Coronate EH-1H, 1H, 2H, 2H-heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer and heat-treated to give a photosensitive plate. A waterless lithog. plate obtained from the plate gave 20,000 high quality prints.

ST waterless lithog plate photosensitive layer; fluororesin layer lithog plate

IT Fluoropolymers

RL: USES (Uses)  
(waterless lithog. plate with photosensitive layer containing)

IT Lithographic plates

(waterless, with photosensitive layer and fluororesin layer)

IT 119-61-9, Benzophenone, uses and miscellaneous

RL: USES (Uses)  
(photopolymn. initiator, waterless lithog. plate with photosensitive layer containing)

IT 93974-90-4P

RL: PREP (Preparation)  
(preparation of, for waterless lithog. plate photosensitive layer)

STN search for 10765,797

IT 130458-59-2 130458-60-5  
RL: USES (Uses)  
(waterless lithog. plate with layer containing)  
IT 130551-17-6  
RL: USES (Uses)  
(waterless lithog. plate with photosensitive layer containing)

L11 ANSWER 64 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1990:621408 CAPLUS  
DN 113:221408  
ED Entered STN: 08 Dec 1990  
TI Waterless lithographic plate materials with photosensitive layer  
and fluororesin layer  
IN Nakajima, Akihisa; Suzuki, Norihito; Tomiyasu, Hiroshi; Kasakura, Akio  
PA Konica Co., Japan; Mitsubishi Kasei Corp.  
SO Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-016  
ICS G03F007-00; G03F007-027  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02115846	A2	19900427	JP 1988-270121	19881026
PRAI JP 1988-270121		19881026		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02115846	ICM	G03F007-016
	ICS	G03F007-00; G03F007-027

AB The title materials comprise a support with coatings of a photosensitive layer containing an ethylenic unsatn. addition polymer, a photopolymn. initiator, and a diazo resin, and a fluororesin layer. The photosensitive layer shows good adhesion to the resin layer, and the materials have good photosensitivity. Thus, an Al plate with a primer layer was coated with a composition containing allylated methacrylic acid-benzyl methacrylate copolymer,

benzophenone, and p-diazophenylamine hexafluorophosphate-HCHO condensate and subsequently with a composition containing Coronate EH-1H,1H,2H,2H-heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer and heat-treated to give a photosensitive plate. The waterless lithog. plate obtained from the plate gave 30,000 high-quality prints.

ST waterless lithog plate ethylenic polymer; fluororesin layer lithog plate; diazo resin lithog plate

IT Fluoropolymers  
RL: USES (Uses)

(waterless lithog. plate with layer containing)

IT Lithographic plates  
(waterless, with photosensitive layer and fluororesin layer)

IT 119-61-9, Benzophenone, uses and miscellaneous  
RL: USES (Uses)

(photopolymn. initiator, waterless lithog. plate with photosensitive layer containing)

IT 130500-99-1P  
RL: PREP (Preparation)

STN search for 10765,797

(preparation of, for waterless lithog. plate photosensitive layer)  
IT 130458-59-2 130458-60-5  
RL: USES (Uses)  
(waterless lithog. plate with layer containing)  
IT 68541-74-2 130551-17-6  
RL: USES (Uses)  
(waterless lithog. plate with photosensitive layer using)

L11 ANSWER 65 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1990:468430 CAPLUS  
DN 113:68430  
ED Entered STN: 17 Aug 1990  
TI Lithographic original plates with a heat-sensitive  
layer containing silicone- or fluoro-type graft copolymers  
IN Sato, Masahiro; Yamane, Shiro  
PA Ricoh Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N001-14  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01290498	A2	19891122	JP 1988-122956	19880518
PRAI JP 1988-122956		19880518		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 01290498	ICM	B41N001-14

AB Lithog. original plates, prepared by forming a heat  
-sensitive layer containing an inorg. pigment, a binder, and a heat  
-meltable substance on a water-resistant support, contain silicone- or  
fluoro-type graft copolymers in the layer. The plates provide  
high d. images without unevenness by using thermal heads and high quality  
prints without greasing and show good antisticking properties.  
Thus, a paper support was coated with an undercoat layer on the front  
side, coated with a back-coat layer on the back side, and then coated with  
a composition containing Sazex 2000 (ZnO), GS-30 (silicone-type graft  
copolymer),  
and LR-1551 (acrylic resin) on the front side to give a heat  
-sensitive plate. The plate gave high quality images by using a thermal  
head.

ST lithog plate heat sensitive layer; silicone graft  
copolymer lithog plate; fluorine graft copolymer lithog  
plate

IT Fluoropolymers

RL: USES (Uses)  
(graft polymers, lithog. plates heat sensitive  
layers containing)

IT Lithographic plates

(with heat sensitive layers containing silicone graft polymers or  
fluoro graft polymers, antisticking)

IT Siloxanes and Silicones, uses and miscellaneous

RL: USES (Uses)  
(acrylic, lithog. plates heat sensitive layers  
containing, Aron GS 30)

IT Siloxanes and Silicones, compounds

STN search for 10765,797

RL: USES (Uses)  
(graft polymers, lithog. plates heat sensitive  
layers containing)  
IT Acrylic polymers, uses and miscellaneous  
RL: USES (Uses)  
(siloxane-, lithog. plates heat sensitive layers  
containing, Aron GS 30)  
IT 75216-52-3, Dianal LR 018 121273-57-2, LR-1551  
RL: USES (Uses)  
(binder, for heat sensitive lithog. plates)  
IT 112-85-6, Docosanoic acid 822-16-2, Sodium stearate  
RL: USES (Uses)  
(heat meltable substance, for heat sensitive  
lithog. plates)  
IT 105287-32-9, Aron GF 300  
RL: USES (Uses)  
(lithog. plates heat sensitive layers containing)  
IT 1314-13-2, Zinc oxide (ZnO), uses and miscellaneous  
RL: USES (Uses)  
(pigment, for heat sensitive lithog. plates)

L11 ANSWER 66 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1989:505851 CAPLUS  
DN 111:105851  
ED Entered STN: 16 Sep 1989  
TI Preparation of lithographic plates from presensitized plates  
involving treatment with fluoro-type surfactant solution and  
burning treatment  
IN Uchida, Toshiaki; Izumi, Yoichi; Sawada, Shozo  
PA Kryo Chemical Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM B41N003-00  
ICS B41C001-10  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01049687	A2	19890227	JP 1987-207028	19870819
PRAI JP 1987-207028		19870819		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 01049687	ICM	B41N003-00
	ICS	B41C001-10

AB A presensitized lithog. plate is pretreated with a solution containing  
a F-containing surfactant prior to burning treatment to give a lithog  
. plate. The lithog. plate provides high-quality prints  
without greasing and shows good printing durability. Thus, a  
pos.-working presensitized plate was imagewise exposed, developed, washed,  
coated with a 3% solution of EFTOP EF-103 (Na perfluoroalkylsulfonate  
, dried, and then heat-treated at 260° for 6 min by  
using a burning oven to give a lithog. plate which gave high  
quality prints and showed excellent printing  
durability.

ST presensitized lithog plate burning treatment; fluoro  
surfactant treatment lithog plate

STN search for 10765,797

IT    **Lithographic plates**  
      (presensitized, processing of, with fluoro-type surfactant  
      solution and burning treatment, for good printing durability)  
IT    1652-63-7, Fluorad FC-135    4021-47-0, Eftop EF 103    29117-08-6, Fluorad  
      FC-170C    94765-69-2, EFTOP EF-126    110737-23-0, Surflon S-132  
      122303-48-4, Eftop EF 105  
RL: USES (Uses)  
      (surfactant, presensitized lithog. plate treated with, for  
      good printing durability)

L11 ANSWER 67 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1988:501924 CAPLUS  
DN 109:101924  
ED Entered STN: 17 Sep 1988  
TI Electrophotographically prepared lithographic plates with choice  
      of positive and negative images  
IN Taguchi, Takao; Ueyama, Kosuke  
PA Japan  
SO Jpn. Kokai Tokkyo Koho, 7  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03G013-28  
      ICS B41C001-10; B41N001-14  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
      Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 63023168	A2	19880130	JP 1986-167049	19860716
PRAI JP 1986-167049		19860716		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 63023168	ICM	G03G013-28
		ICS B41C001-10; B41N001-14

AB    The title plates having a photoconductive layer containing phthalocyanine pigment, ZnO, and binder are imagewise exposed after corona charging and developed with a developer containing fluoropolymer particles, and either treated with a desensitizer solution for obtaining pos. images or heat-treated for obtaining neg. images. Beside the free choice of the type of images, the plates are used for platemaking with a semiconductor laser, and allow the use of heat fixing when waterless printing of neg. images is desired. Thus, a paper sheet backcoated with a conductive polymer was coated with an emulsion containing a 1:1 Bu acrylate-Me methacrylate copolymer,  $\epsilon$ -Cu phthalocyanine, and ZnO. A developer was prepared by polymerizing 9.7 g dodecyl

methacrylate and 0.3 g glycidyl methacrylate; adding 10 mg hydroquinone and 25 mg lauryldimethylamine, adding 75 mg methacrylic acid, heating further, adding 10 g Viscoat 17F and azobisisobutyronitrile, heating, and dilution of the obtained latex with Isopar G. The plate was charged pos. on the photosensitive side, imagewise exposed and developed using the developer, to obtain a pos. image. Treatment with etching solution and use in offset printing gave pos. printed copies with a high resolution. Alternately, the pos.-imaged plate was treated at 120° for 2 min, and was used as a waterless plate, which gave >1000 clear neg. printed copies.

The developer was stable on storage.

ST    lithog plate electrophotog pos neg

STN search for 10765,797

IT Rubber, cyclized  
RL: USES (Uses)  
(developer for electrophotog. prepared lithog. plates containing)  
IT **Fluoropolymers**  
RL: PREP (Preparation)  
(developer for electrophotog. prepared lithog. plates containing,  
preparation of)  
IT **Lithographic plates**  
(electrophotog. in manufacture of, with pos. or neg. images,  
fluoropolymer-containing developer in relation to)  
IT **Electrophotographic developers**  
(fluoropolymer-containing, for preparation of lithog.  
plates)  
IT 24937-79-9 88233-95-8 116107-72-3  
RL: USES (Uses)  
(developer for electrophotog. prepared lithog. plates containing)

L11 ANSWER 68 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1988:29487 CAPLUS  
DN 108:29487  
ED Entered STN: 23 Jan 1988  
TI Acrylic fluoropolymer as developer for waterless  
lithographic plates  
IN Taguchi, Takao; Kumagai, Koji; Ueyama, Kosuke; Hamada, Nobuhiro; Inaba,  
Yoshimi  
PA Toppan Printing Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03G013-28  
ICS B41N001-14  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 62180377	A2	19870807	JP 1986-23093	19860205
PRAI JP 1986-23093		19860205		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 62180377	ICM	G03G013-28
	ICS	B41N001-14

AB Waterless lithog. plates are prepared by forming electrostatic  
latent images on a plate, which is obtained by forming an organic  
photoconductive substance layer on a conductive substrate, and reversal  
developing the images to form image parts and nonimage parts. The  
nonimage parts comprise a developer whose main constituent is a  
(meth)acrylate (co)polymer having F atoms on its mol. The lithog  
. plates provide high quality prints without scumming and  
exhibit good printing durability. Thus, Metalumy 100  
(Al-deposited polyester film) was coated with a composition containing  
poly(vinylcarbazole) and trinitrofluorenone, and the photoreceptor was  
imagewise exposed, developed with a toner comprising CH<sub>2</sub>:CHCO<sub>2</sub>CH<sub>2</sub>C<sub>10</sub>F<sub>4</sub>-Bu  
acrylate copolymer by using an electrophotog. process and then  
heat-treated to give a lithog. plate with neg. toner  
images. The critical surface tension of the toner image parts was <17.06  
dyne/cm and the lithog. plate gave high quality pos.  
prints without scumming.

STN search for 10765,797

ST fluorine methacrylate developer lithog plate  
IT Rubber, cyclized  
RL: USES (Uses)  
(electrophotog. plate developer using)  
IT Fluoropolymers  
RL: USES (Uses)  
(acrylic, electrophotog. plate developers using)  
IT Acrylic polymers, uses and miscellaneous  
RL: USES (Uses)  
(fluorine-containing, electrophotog. plate developers using)  
IT Electrophotographic developers  
(toners, fluorine-containing (meth)acrylic polymers using, for waterless  
lithog. plates)  
IT Lithographic plates  
(waterless, developers, fluorine-containing (meth)acrylate polymers using)  
IT 28497-86-1 112077-51-7 112077-52-8, Dodecyl methacrylate-glycidyl  
methacrylate-methacrylic acid-Viscoat 17 F copolymer  
RL: USES (Uses)  
(electrophotog. plate developer using)

L11 ANSWER 69 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:468172 CAPLUS

DN 107:68172

ED Entered STN: 21 Aug 1987

TI Photosensitive printing plates

IN Iwaki, Akio; Suzuki, Akihiko

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-02

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 61273547	A2	19861203	JP 1985-115799	19850529
PRAI JP 1985-115799		19850529		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

JP 61273547	ICM	G03F007-02
-------------	-----	------------

AB The matting agent contained in the photosensitive layer of the title  
plates is a F-containing organic compound insol. in the solvents used in  
coating of

the layer. The layer is prepared without addnl. coating or heating  
processes, and provides close contact of the plates with the original, is  
antistatic, and does not degrade the print quality. A  
degreased, grained, anodized, and sealed Al plate was coated with a composition  
containing a m-cresol-HCHO resin naphthoquinone-1,2-diazide-5-sulfonate 3.5,  
m-cresol-HCHO resin 8.0, naphthoquinone-1,2-diazide-4-sulfonyl chloride  
0.15, a p-octylphenol-HCHO resin naphthoquinone-1,2-diazide-5-sulfonate  
0.12, Lublon L-2 (PTFE powder; average particle diameter 10  $\mu$ ) 0.24, Oil Blue  
603 0.2 part, and ethylene glycol monethyl ether. A lithog.  
plate obtained by exposure and development (4% Na metasilicate) gave a  
large number of prints without blemishes.

ST photolithog plate fluoropolymer matting agent; photosensitive  
printing plate antistatic

IT Fluoropolymers

STN search for 10765,797

RL: USES (Uses)  
(matting agents, for photosensitive compns. containing diazo resins for  
lithog. plates)

IT Lithographic plates  
(photosensitive compns. containing diazo resins and fluoropolymer  
matting agent for preparation of)

IT 9002-83-9, Diaflon N-300 9002-84-0, Lublon L-2 25067-11-2, Neoflon  
NP-20

RL: USES (Uses)  
(matting agent, for photosensitive compns. containing diazo resins for  
lithog. plates)

IT 25086-36-6, m-Cresol-formaldehyde copolymer

RL: USES (Uses)  
(photosensitive compns. containing diazo resins and fluoropolymer  
matting agent and, for fabrication of lithog. plates)

IT 36451-09-9

RL: USES (Uses)  
(photosensitive compns. containing fluoropolymer matting agent  
and diazo resin and, for fabrication of lithog. plates)

IT 110-80-5, Ethylene glycol monoethyl ether 1328-54-7, Oil blue 603  
65722-01-2, Victoria pure blue 104887-16-3

RL: USES (Uses)  
(photosensitive compns. containing fluoropolymer matting agent  
and diazo resins and, for fabrication of lithog. plates)

IT 62655-78-1 75757-31-2 84135-66-0

RL: USES (Uses)  
(photosensitive compns. containing fluoropolymer matting agent  
and, for fabrication of lithog. plates)

L11 ANSWER 70 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1987:186540 CAPLUS  
DN 106:186540  
ED Entered STN: 29 May 1987  
TI Heat-fixing process for toner image on lithographic  
plate transferred from electrophotographic photoreceptor  
IN Yamane, Shiro; Arai, Fumiaki  
PA Ricoh Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 2 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03G015-20  
ICS G03G013-28; G03G015-20  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 61258282	A2	19861115	JP 1985-100879	19850513
PRAI JP 1985-100879		19850513		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 61258282	ICM	G03G015-20
	ICS	G03G013-28; G03G015-20

AB The process uses a plasticizer incorporated in a silicone oil coated on a  
siloxane or fluoropolymer roller to improve the durability of  
the lithog. plate. A toner image on a lithog. plate  
was heat-fixed with a siloxane roller coated with the silicone  
oil KF 96 containing the plasticizer Bu phthalate. The process provided a

STN search for 10765,797

lithog. plate with improved printing durability and the  
lithog. plate gave prints with improved clarity.  
ST lithog plate toner image fixing  
IT Lithographic plates  
(electrophotog. preparation of, heat fixing of toner images in,  
with siloxane rollers coated with silicone oils containing plasticizer, for  
improved durability)  
IT 84-74-2, Butyl phthalate 27554-26-3, Isooctyl phthalate  
RL: MOA (Modifier or additive use); USES (Uses)  
(plasticizer, electrophotog. preparation of lithog. plates with  
toner images fixed by siloxane rollers coated with silicone oils  
containing, for improved durability)

L11 ANSWER 71 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1986:13120 CAPLUS  
DN 104:13120  
ED Entered STN: 11 Jan 1986  
TI Electroerosion printing  
IN Afzali-Ardakani, Ali; Cohen, Mitchell Simmons; Pennington, Keith Samuel;  
Sachdev, Krishna Gandhi  
PA International Business Machines Corp. , USA  
SO Eur. Pat. Appl., 24 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM B41M005-24  
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 147643	A2	19850710	EP 1984-114278	19841127
EP 147643	A3	19870225		
EP 147643	B1	19890125		
R: DE, FR, GB				
US 4554562	A	19851119	US 1983-567297	19831230
JP 60145887	A2	19850801	JP 1984-192765	19840917
PRAI US 1983-567297	A	19831230		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 147643	ICM	B41M005-24

AB An electroerosion recording material having improved scratch resistance is obtained by incorporating a hard lubricating hydrophobic polymer layer between the support and the removable metal recording layer to reduce plastic deformation of the support under the stylus writing pressure. The polymer layer contains graphite fluoride and/or a fluorocarbon resin, such as Teflon, and hard particles, such as silica, and provides good adhesion between the overlying metal film (i.e. Al) and the support. The recording material may be used in making directly readable images, direct negs., and wear-resistant offset printing plates. Thus, a mixture of a 20% cellulose acetate butyrate solution in a 4:1 THF-PhMe mixture

30, amorphous silica 5.5, graphite fluoride 1, a polyester-polyol dispersing agent (R221-75) 0.3, and a fluorocarbon surfactant (FC-430) 0.05 part was ball milled. The dispersion 10 parts was mixed with the cellulose acetate butyrate solution 10, a polyisocyanate (CB-75) 4.5, a 4:1 THF-PhMe mixture 8, stannous octoate 0.01, and FC-430 0.01 part, coated on a Mylar film, heat-treated at 100° to provide a 5-6-μm dry layer, deposited with a 250-400 Å Al film (resistivity

STN search for 10765,797

2-2.5 Ω/cm<sup>2</sup>), and used in a high-speed electroerosion printer with a multi-stylus printing head to give excellent images with no accumulation of eroded debris on the printing head.

ST electroerosion recording material intermediate layer; graphite fluoride electroerosion recording material; polymer hydrophobic electroerosion recording material

IT Recording materials  
(electroerosion, containing support and metal top layer and intermediate layer containing silica and fluorocarbon resin and graphite fluoride)

IT Polyesters, uses and miscellaneous  
RL: USES (Uses)  
(hydroxy-terminated, intermediate layer containing silica and graphite fluoride and fluorocarbon resin and, for electroerosion recording materials with aluminum top layer)

IT Lithographic plates  
(offset, electroerosion recording material containing metal top layer and intermediate layer containing silica and fluorocarbon resin and graphite fluoride for fabrication of)

IT 7631-86-9, uses and miscellaneous  
RL: USES (Uses)  
(amorphous, intermediate layer containing graphite fluoride and, for electroerosion recording materials containing aluminum top layer)

IT 301-10-0  
RL: USES (Uses)  
(coating composition containing silica and graphite fluoride and cellulose acetate butyrate and, for preparation of intermediate layer for electroerosion recording materials with aluminum top layer)

IT 11114-17-3 37342-24-8  
RL: USES (Uses)  
(coating composition containing silica, graphite fluoride, cellulose acetate butyrate and, for preparation of intermediate layer for electroerosion recording materials with aluminum top layer)

IT 7429-90-5, uses and miscellaneous  
RL: USES (Uses)  
(electroerosion recording materials with top layer of, intermediate layer containing graphite fluoride and silica and fluorocarbon resin for)

IT 7440-25-7, uses and miscellaneous 30525-44-1  
RL: USES (Uses)  
(intermediate layer containing graphite fluoride and silica and, for electroerosion recording materials containing aluminum top layer)

IT 11113-63-6  
RL: USES (Uses)  
(intermediate layer containing silica and, for electroerosion recording materials with aluminum top layer)

IT 9004-36-8  
RL: USES (Uses)  
(intermediate layer containing silica, graphite fluoride and, for electroerosion recording materials containing aluminum top layer)

IT 25038-59-9, uses and miscellaneous  
RL: USES (Uses)  
(support, for electroerosion recording materials with aluminum top layer and intermediate layer containing graphite fluoride and silica)

L11 ANSWER 72 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1983:505915 CAPLUS  
DN 99:105915  
ED Entered STN: 12 May 1984

STN search for 10765,797

TI Fluorine-containing alcohol and its derivatives and a polymer comprising them

IN Ohmori, Akira; Tomihashi, Nobuyuki; Tamaru, Sinji

PA Daikin Kogyo Co., Ltd. , Japan

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA English

IC C07C043-11; C07C043-13; C07C069-653; C08F020-26; B41M001-08

ICA G03F007-10

CC 35-7 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 42, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 79590	A1	19830525	EP 1982-110424	19821111
	EP 79590	B1	19860219		
	R: DE, FR, GB				
	JP 58083011	A2	19830518	JP 1981-182518	19811112
	JP 03018643	B4	19910313		
	JP 58090524	A2	19830530	JP 1981-188973	19811124
	US 4587165	A	19860506	US 1984-639855	19840813
PRAI	JP 1981-182518	A	19811112		
	JP 1981-188973	A	19811124		
	US 1982-440305	A1	19821109		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES		
	EP 79590	IC	C07C043-11IC	C07C043-13IC	C07C069-653IC
			C08F020-26IC	B41M001-08	
		ICA	G03F007-10		

AB A polymer comprising monomeric units derived from  $F[CF(CF_3)CF_2O]_{n-1}CF(CF_3)CH_2OCOC(R):CH_2$  (I; n = 2-7; R = H, Me) has excellent ink repellent properties. I is prepared from esterification of  $F[CF(CF_3)CF_2O]_{n-1}CF(CF_3)CH_2OH$  (II; n as above). Thus, a solution of 51.0 g  $F[CF(CF_3)CF_2O]_2CF(CF_3)COOMe$  in 200 mL Et<sub>2</sub>O was added dropwise over 2 h to a mixture of 5.5 g LiAlH<sub>4</sub> and 200 mL Et<sub>2</sub>O. The mixture was refluxed for 15 min to give II (n = 3). A mixture of C<sub>6</sub>H<sub>6</sub> 50, methacrylic acid 24, II (n = 3) 48.2, and hydroquinone 0.1 g was heated to 80°. PC15 (25 g) was added to give I (n = 3). A mixture of I (n = 3) 10, hexafluoro-m-xylene (III) 20, and AIBN 0.1 g was heated at 60° for 24 h to give a transparent polymer [87000-02-0] having a glass temperature -9° and reflective index 1.3410. The polymer was dissolved in III to prepare a 10% solution and was applied on an Al plate. The coated-plate was set on a master cylinder of an offset printing machine. After 500 or 2000 revolutions of the machine, the ink adhered on plate was transferred to a white paper, and the relative reflectance of the inked paper was 12 and 14 resp., compared with 3 and 1, resp., for inked paper prepared using a plate coated with C<sub>8</sub>F<sub>17</sub>CH<sub>2</sub>CH<sub>2</sub>OCOC(CH<sub>3</sub>):CH<sub>2</sub> polymer.

ST fluorokalkyl methacrylate polymer; methacrylic acid

fluoroallic esterification; coating fluoroalkyl

methacrylate polymer; ink repellent fluoroalkyl methacrylate

polymer

IT Coating materials

(fluoroalkyl methacrylate (co)polymers, ink-repellent, for  
lithog. plates)

IT Lithographic plates

(ink-repellent compds. for, fluoroalkyl methacrylate polymers  
as)

IT Polymerization

STN search for 10765,797

(of fluoroalkyl methacrylate)

IT Inks  
(repellents for, fluoroalkyl methacrylate (co)polymers as,  
for lithog. plates)  
IT 14548-74-4P 14620-81-6P 26537-88-2P  
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and esterification of, with methacrylic acid)  
IT 28754-14-5P 30862-04-5P 30961-84-3P 33255-74-2P  
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and polymerization of)  
IT 86999-94-2P 86999-95-3P 86999-96-4P 86999-97-5P 86999-98-6P  
86999-99-7P 87000-00-8P 87000-01-9P 87000-02-0P  
RL: PREP (Preparation)  
(preparation of, as ink repellents for lithog. plates)

L11 ANSWER 73 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1981:452720 CAPLUS  
DN 95:52720  
ED Entered STN: 12 May 1984  
TI Improvements in or relating to lithographic printing  
plates  
IN Lawson, Leslie Edward  
PA Vickers Ltd., UK  
SO Brit., 5 pp. Addn. to Brit. 1,513,368.  
CODEN: BRXXAA  
DT Patent  
LA English  
IC B41N003-08  
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
Section cross-reference(s): 46

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1575200	A	19800917	GB 1975-48085	19751121
PRAI GB 1975-48085		19751121		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
GB 1575200	IC	B41N003-08

AB Contamination of the hydrophilic nonimage areas of lithog.  
printing plates by oleophilic materials during curing of the  
photopolymer coating is prevented by treating the surface of imagewise  
exposed and developed plates with a water-soluble or -dispersible material  
capable of forming a barrier layer on the nonimage areas during  
heating and which can be removed after heating by  
washing. The barrier-forming material is an alkyl- or arylsulfonate-type  
surfactant or colloidal SiO<sub>2</sub>. Thus, a pos. working anodized Al  
printing plate with a photosensitive coating containing novolak resin  
and o-quinone diazide was imagewise exposed and developed in an alkaline  
silicate composition. After washing and drying the plate was wiped with a 7%  
aqueous solution of gum arabic containing 22% Na

dodecylphenoxybenzenedisulfonate

followed by heating 20 min at 230° and washing. When  
used in an offset printing process the plate produced good clean  
copies whereas a similar plate desensitized with gum arabic after  
heating took up ink in the nonimage areas.

ST desensitization lithog printing plate; gum arabic  
desensitization printing plate; sulfonate surfactant  
desensitization printing plate; dodecylphenoxybenzenesulfonate  
desensitization printing plate; phenoxybenzenesulfonate

STN search for 10765,797

desensitization printing plate; silica colloidal desensitization printing plate  
IT Lithographic plates  
(desensitization of, gum arabic-sulfonate surfactant compns. for)  
IT Surfactants  
(nonionic, alkyl- and arylsulfonate, desensitization by, of printing plates)  
IT Sulfonic acids, compounds  
RL: USES (Uses)  
(perfluoroalkane, salts, compns. containing gum arabic and, for desensitization of printing plates)  
IT 1344-28-1, uses and miscellaneous 7631-86-9, uses and miscellaneous  
RL: USES (Uses)  
(colloidal, compns. containing gum arabic and, for desensitization of printing plates)  
IT 25155-19-5D, alkyl derivs., sodium salt 77641-76-0  
RL: USES (Uses)  
(compns. containing CMC and, for desensitization of printing plates)  
IT 577-11-7 25155-30-0 26545-58-4 58318-10-8  
RL: USES (Uses)  
(compns. containing alginate and, for desensitization of printing plates)  
IT 2795-39-3 12626-49-2 12751-11-0 30734-90-8  
RL: USES (Uses)  
(compns. containing gum arabic and, for desensitization of printing plates)  
IT 9000-01-5 9004-32-4 9005-34-9 9005-38-3  
RL: USES (Uses)  
(compns. containing nonionic surfactant and, for desensitization of printing plates)

L11 ANSWER 74 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1978:476199 CAPLUS

DN 89:76199

ED Entered STN: 12 May 1984

TI Printing plates

IN Thomas, Eric William; Maistros, Thomas Joseph

PA Industrial Electronic Rubber Co., USA

SO Fr. Demande, 16 pp.

CODEN: FRXXBL

DT Patent

LA French

IC B41N009-02

CC 38-15 (Elastomers, Including Natural Rubber)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2352675	A1	19771223	FR 1977-16109	19770526
	FR 2352675	B1	19840224		
	DE 2718224	A1	19771215	DE 1977-2718224	19770423
	CA 1094269	A1	19810127	CA 1977-279213	19770526
	GB 1568412	A	19800529	GB 1977-22516	19770527
	JP 52147103	A2	19771207	JP 1977-61771	19770528
PRAI US	1976-690856	A	19760528		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

FR 2352675 IC B41N009-02

AB Printing plates with good resistance to heat, chems.,

STN search for 10765,797

swelling, and compression and with smooth void-free surfaces are manufactured by coating a cotton textile with a foamable composition containing a fluororoelastomer to 0.38-43 mm, covering with a cotton textile, coating with a nonfoamable fluororoelastomer, placing this sandwiched between steel plates enclosed on 4 sides, and heating at 150-200° at 7.73 kg/cm<sup>2</sup> for 5 min to foam and vulcanize.

ST printing plate fluororoelastomer composite; rubber  
fluoro printing plate

IT Rubber, synthetic  
RL: USES (Uses)  
(fluoro, manufacture of offset printing plates from)

IT Rubber, synthetic  
RL: USES (Uses)  
(hexafluoropropene-vinylidene fluoride, manufacture of offset printing plates from)

IT Lithographic plates  
(offset, manufacture of, from fluororoelastomers)

L11 ANSWER 75 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1977:503135 CAPLUS

DN 87:103135

ED Entered STN: 12 May 1984

TI Dry offset printing

IN Sanders, James Frederick

PA Minnesota Mining and Manufacturing Co., USA

SO Ger. Offen., 20 pp.

CODEN: GWXXBX

DT Patent

LA German

IC B41N001-14

CC 37-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2655837	A1	19770623	DE 1976-2655837	19761207
	DE 2655837	B2	19800110		
	DE 2655837	C3	19800828		
	CA 1100371	A1	19810505	CA 1976-266597	19761125
	DK 7605442	A	19770609	DK 1976-5442	19761203
	DK 148840	B	19851021		
	DK 148840	C	19860317		
	SE 7613594	A	19770609	SE 1976-13594	19761203
	SE 426105	B	19821206		
	SE 426105	C	19830317		
	NL 7613484	A	19770610	NL 1976-13484	19761203
	BE 849149	A1	19770607	BE 1976-173040	19761207
	FR 2334503	A1	19770708	FR 1976-36755	19761207
	FR 2334503	B1	19810410		
	BR 7608212	A	19771122	BR 1976-8212	19761207
	AT 350596	B	19790611	AT 1976-9048	19761207
	AT 7609048	A	19781115		
	GB 1549259	A	19790725	GB 1976-51032	19761207
	SU 679121	D	19790805	SU 1976-2428669	19761207
	CH 627007	A	19811215	CH 1976-15360	19761207
	JP 52076104	A2	19770627	JP 1976-147597	19761208
	JP 57008678	B4	19820217		
PRAI	US 1975-638454	A	19751208		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

STN search for 10765,797

DE 2655837 IC B41N001-14  
AB Plates for the title process, giving sharp impressions, contain dispersions of solid, fluorinated compds. giving surfaces which repel oil dyes. Thus, heating a 50% THF solution of 70 parts C8F17SO2N(Et)CH2CH2O2CCH:CH2 and 30 parts HOCH2CH2O2CCH:CH2 24 h at 50° gives copolymer (I) [63740-61-4]. A solution of 15 parts I in 70 parts MeCOEt is stirred with a solution of 30 parts Geon 128 (PVC) [9002-86-2] in 70 parts PhMe 3 h, coated to 0.076 mm on paper or corona-treated polyester film, and dried to coating weight 0.11 g/dm<sup>2</sup>. After being provided with an image by pencil, pen, or copying apparatus, this plate gives >700 high-quality impressions in dry, offset printing.  
ST offset printing plate dry; fluoropolymer printing plate  
IT Lithographic plates (fluoropolymer-plastics dispersions for dry)  
IT Binding materials (plastics, for fluoropolymer dispersions for dry offset printing plates)  
IT 63729-39-5 63740-61-4  
RL: USES (Uses)  
(dispersions in plastics, for dry offset printing plates)  
IT 9002-86-2 24937-78-8 63793-45-3  
RL: USES (Uses)  
(fluoropolymer dispersions in, for dry offset printing plates)

L11 ANSWER 76 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1976:97852 CAPLUS  
DN 84:97852  
ED Entered STN: 12 May 1984  
TI Lithographic printing plates  
IN Kojima, Hideo  
PA Dai Nippon Printing Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC B41C; B41M  
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 50089103	A2	19750717	JP 1973-138328	19731206
PRAI JP 1973-138328	A	19731206		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 50089103	IC B41CIC	B41M

AB An elec. conductive support is coated with a fluorocarbon resin, and the resin layer is imagewise decomposed by using an elec. discharge to give a lithog. printing plate which does not require an aqueous wetting solution during printing. Thus, an Al-laminated paper support was coated with Oil Barrier FP-85 and heated at 130° for 30 min to form a 3-μ thick fluorocarbon resin layer; images were then drawn on the coating layer by using Duplofax R-313 (an elec. discharge-type imaging apparatus) to give a lithog. plate which was used in an offset printing machine without a wetting solution to give 200 clear prints.

ST lithog printing plate fluorocarbon resin

IT Electric discharge, chemical and physical effects

STN search for 10765,797

(in imaging of fluorocarbon thin layer on elec. conductive support for lithog. printing plate preparation)

IT **Fluorocarbons**

RL: USES (Uses)  
(lithog. plates nonimage areas from, for printing without using aqueous wetting solns.)

IT **Lithographic plates**

(offset, with fluorocarbon nonimage areas for printing without using aqueous wetting solns.)

IT 7429-90-5, uses and miscellaneous

RL: USES (Uses)  
(lithog. plates from fluorocarbon layer on hydrophobic, for printing without using wetting solns.)

L11 ANSWER 77 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1976:24435 CAPLUS

DN 84:24435

ED Entered STN: 12 May 1984

TI Dry planographic printing plate

IN Cords, Donald P.

PA du Pont de Nemours, E. I., and Co., USA

SO U.S., 14 pp.

CODEN: USXXAM

DT Patent

LA English

IC B41M; B41N; G03F

NCL 101450000

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 3910187	A	19751007	US 1973-390372	19730822
PRAI US 1971-176094	A2	19710830		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES		
------------	-------	------------------------------------	--	--

US 3910187	IC	B41MIC	B41NIC	G03F
	NCL	101450000		

AB Fluorinated compds. having a fluorinated radical at one end and the polar. Radical at the other end and F-containing polymers having a fluorinated radical linked to a radical having a polymerizable C-to-C linkage are ink-repellent and are used in the preparation of lithog. plates. Thus, a brushed and smooth Cu plate was spray coated with a 10% solution of a mixture of 95 parts CF<sub>3</sub>(CF<sub>2</sub>)<sub>5</sub>CH<sub>2</sub>CH<sub>2</sub>OOCCH:CH<sub>2</sub> and 5 parts of benzoin methyl ether in 1,1,2-trichloro-1,2,2-trifluoroethane to give a dry layer of 0.0025 cm thick, exposed through a stencil to light from a G. E. Blacklite fluorescent tube at a distance of 5 in and for 1 min, heated to 150-175° until the monomer ceased to vaporize, and when contacted with printing ink accepted ink only in the nonexposed areas.

ST lithog plate fluorinated compd; fluorine polymer lithog plate

IT **Lithographic plates**

(fluorinated compds. and fluorinated polymers for, ink-rejecting)

IT Polymers, uses and miscellaneous

RL: USES (Uses)

(fluorinated, for lithog. plates, ink-rejecting)

IT **Fluorocarbons**

RL: USES (Uses)

(for lithog. plates, ink-rejecting)

IT Ligoine

STN search for 10765,797

RL: USES (Uses)  
(lithog. plate coating composition containing fluorinated compds. and,  
ink-repellent)

IT 140-10-3, uses and miscellaneous

RL: USES (Uses)  
(lithog. plate coating composition containing fluorinated compound,  
methylene chloride, and, ink-repellent)

IT 1996-88-9 2144-53-8 2144-54-9 2357-60-0 22205-15-8 57678-10-1  
57678-11-2

RL: USES (Uses)  
(lithog. plate coating composition containing, ink-repellent)

IT 15498-45-0 29402-20-8 31205-99-9 50641-94-6 57678-87-2  
57678-88-3 57678-89-4 57706-39-5 57762-85-3

RL: USES (Uses)  
(lithog. plate coating composition, ink-repellent)

IT 9002-84-0 25656-06-8 57677-96-0 57677-97-1 57677-98-2 57678-00-9  
57678-02-1 57678-04-3 57678-06-5 57678-08-7 57678-09-8  
57678-91-8 57678-92-9 57678-93-0 57678-94-1 57678-95-2  
57678-96-3 57927-84-1

RL: USES (Uses)  
(lithog. plate preparation by ink-repellent)

IT 17527-29-6 17741-60-5 27905-45-9 34395-24-9

RL: USES (Uses)  
(photopolymerizable composition containing benzoin methyl ether and, for  
lithog. plates)

IT 3524-62-7

RL: USES (Uses)  
(photopolymerizable compns. containing fluorinated alkyl acrylates and, for  
lithog. plates)

L11 ANSWER 78 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1975:450793 CAPLUS

DN 83:50793

ED Entered STN: 12 May 1984

TI Fabrication of lithographic plate

IN Shinozaki, Fumiaki; Tsuboi, Masayoshi

PA fugi, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

NCL 116A42; 116A411; 103H0

CC .74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50015602	A2	19750219	JP 1973-66635	19730613
	JP 56004907	B4	19810202		
PRAI	JP 1973-66635	A	19730613		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

JP 50015602	NCL	116A42
-------------	-----	--------

AB The Ag images formed on the hydrophilic layer prepared from a thermoplastic phenolic resin and a water-soluble polymer such as polyether, polyamine, or polyamide are converted to lipophilic images by contacting the images with an aqueous solution containing a Ag oxidizing agent and a water-soluble peroxide to give a lithog. plate. The treatment converts the hydrophilic layer to the lipophilic layer without etching and also hardens the layer, and

STN search for 10765,797

thus the lithog. plates prepared by this method can be used repeatedly. Thus, a poly(ethylene terephthalate) support was coated with a mixture consisting of phenolic resin (60% solids) 13.5, polyethylene oxide (average mol. weight 1,000,000-5,000,000) 12.0, p-toluenesulfonic acid monohydrate 0.15, fluoroglucitol dihydrate 0.6 g, and DMF 600 ml, heated 30 min at 120°, then treated with aqueous Ni nitrate solution and aqueous (NH4)2S solution, then Ag images were formed on the film by using Ag complex diffusion transfer method, and the sheet was treated with an aqueous solution containing CuCl2 8 and (NH4)2S2O8 10 g/3 l. to give a lithog. plate which was useful in offset printing.

ST lithog plate fabrication; silver halide lithog plate  
IT Phenolic resins  
RL: USES (Uses)  
(lithog. plate coating composition containing polyethylene oxide and, for silver diffusion-transfer imaging)  
IT Lithographic plates  
(phenolic resin-polyethylene oxide coating compns. for, for diffusion-transfer silver image production)  
IT 25322-68-3  
RL: USES (Uses)  
(lithog. plate coating compns. containing phenolic resins and)  
IT 104-15-4, uses and miscellaneous 12135-76-1 13138-45-9 55787-71-8  
RL: USES (Uses)  
(lithog. plate phenolic resin-polyethylene oxide coating composition containing)  
IT 7447-39-4, uses and miscellaneous  
RL: USES (Uses)  
(lithog. plate treatment solution containing ammonium peroxydisulfate and)  
IT 7727-54-0  
RL: USES (Uses)  
(lithog. plate treatment solution containing copper chloride and)

L11 ANSWER 79 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1967:469474 CAPLUS  
DN 67:69474  
ED Entered STN: 12 May 1984  
TI Printing plates  
PA Grafi-France  
SO Fr., 3 pp.  
CODEN: FRXXAK  
DT Patent  
LA French  
IC B41N  
CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI FR 1465951		19670113	FR	19660126

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	-----	-----
FR 1465951	IC	B41N
AB A layer of polyfluoroethylene is formed on those parts of a printing plate which do not receive ink, thereby avoiding the use of water and saving ink. Polytetrafluoroethylene (I) or polytrifluorochloroethylene may be used. A steel plate is cleaned by brushing with oxalic acid, H <sub>2</sub> SO <sub>4</sub> , or H <sub>2</sub> O <sub>2</sub> , sensitized with a coating of		

STN search for 10765,797

poly(vinyl alc.) containing (NH<sub>4</sub>)<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>, and exposed through a negative to actinic radiation. A thin coating of phenol-formaldehyde lacquer is applied, and the unexposed portions of the coating are removed by dissolving in H<sub>2</sub>O. Cu is electrolytically deposited on the bare steel portions of the plate and the Cu surfaces are protected with a poly(vinyl chloride) coating. Exposed bichromate is then removed and the bare steel surfaces coated with I to a thickness of ≥0.025 mm. The whole plate is then heated to >400° to harden the I and brushed to expose the Cu surfaces which are to receive ink.

ST FLUOROETHYLENES PRINTING PLATES; PRINTING PLATES FLUOROETHYLENES; POLYFLUOROETHYLENES PRINTING PLATES; PLATES PRINTING FLUOROETHYLENES  
IT Lithography (plates, oleophobic coatings for, tetrafluoroethylene polymers as)  
IT 9002-84-0, uses and miscellaneous  
RL: USES (Uses)  
(coatings of, on lithographic plates)

=> d his

(FILE 'HOME' ENTERED AT 15:59:04 ON 15 MAR 2005)

FILE 'CAPLUS' ENTERED AT 15:59:38 ON 15 MAR 2005  
L1 59363 S LITHOG?  
L2 715 S PLANOGR?  
L3 59785 S L1 OR L2  
L4 2760301 S HEAT? OR INFRARED OR INFRA RED OR IR OR THERMAL PRINthead OR  
L5 6643 S L4 AND L3  
L6 400557 S FLUORO? OR PERFLUORO?  
L7 215 S L6 AND L5  
L8 242856 S DYE  
L9 10 S L7 AND L8  
L10 205 S L7 NOT L9  
L11 79 S L10 AND PRINT?

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	297.59	297.80
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-64.97	-64.97

STN INTERNATIONAL LOGOFF AT 16:03:22 ON 15 MAR 2005

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
		perfluoro\$ and 430/270.1-309.ccls. and (ir infrared infra adj red heat\$) perfluoro\$	USPAT	OR	OFF	2005/03/15 19:07
L1	13657	perfluoro\$	US-PGPUB; USPAT	OR	OFF	2005/03/15 19:04
L2	33009	perfluoro\$	USPAT	OR	OFF	2005/03/15 19:05
L3	2018	perfluoro\$	EPO	OR	OFF	2005/03/15 19:05
L4	9715	perfluoro\$	EPO; JPO	OR	OFF	2005/03/15 19:05
L5	27346	perfluoro\$	EPO; JPO; DERWENT	OR	OFF	2005/03/15 19:05
L6	1016	perfluoro\$ and 430/270.1-309.ccls.	USPAT	OR	OFF	2005/03/15 19:06
L7	954	perfluoro\$ and 430/270.1-309.ccls. and (ir infrared infra adj red heat\$10)	USPAT	OR	OFF	2005/03/15 19:07
L8	397	perfluoro\$ and 430/270.1-309.ccls. and (ir infrared infra adj red )	USPAT	OR	OFF	2005/03/15 19:08
L9	32	perfluoro\$ same dye\$3 and 430/270.1-309.ccls. and (ir infrared infra adj red )	USPAT	OR	OFF	2005/03/15 19:17
L10	69	perfluoro\$ same (squarylium croconate cyanine phthalocyanine merocyanine chalcogenopyryloarylidene oxyindolizine quinoid indolizine pyrylium dithiolene) and (ir infrared infra adj red )	USPAT	OR	OFF	2005/03/15 19:27
L11	82	perfluoro\$ and "101"/\$.ccls. and (ir infrared infra adj red )	USPAT	OR	OFF	2005/03/15 19:27
S60	2	ep-1031579-\$ did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/03/15 12:34
S61	1	("20030083396").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2004/09/09 15:05
S62	1	("4837256").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/23 15:58
S63	1	2003WO-us19136.prai,ap.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/23 16:26
S64	1	wo-200020517-\$ did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/23 16:30
S65	2	wo-9903930-\$ did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/23 16:30
S66	1	("5916488").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/23 18:24
S67	1	("6447749").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/23 18:26
S68	1	("20030129532").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/23 18:34
S69	1	("4746531").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/23 18:35

S70	1	("4743531").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/23 18:37
S71	1	("4743530").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/23 18:38
S72	1	("4324741").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:25
S73	10	perfluorometh?	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:26
S74	15	perfluoroeth?	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:26
S75	3961	perfluoroprop\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:26
S76	4243	perfluoroeth\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:26
S77	3194	perfluorometh\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:26
S78	4313	perfluorobut\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:26
S79	1223	perfluoropent\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:26
S80	2809	perfluorohex\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:27
S81	1082	perfluorohept\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:27
S82	6009	perfluorooct\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:27
S83	730	perfluoronon\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:27
S84	2104	perfluorodec\$	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:27
S85	315463	(ir infrared infra adj red )	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:28
S86	15789	S75 S76 S77 S78 S79 S80 S81 S82 S83 S84	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:28
S87	4920	S86 and S85	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:28
S88	460	S86 same S85	US-PGPUB; USPAT	OR	OFF	2005/02/24 13:28
S89	31	S87 and 430/302-303.ccls.	US-PGPUB; USPAT	OR	OFF	2005/02/24 14:43
S90	246	S87 and 430/270.1-309.ccls.	US-PGPUB; USPAT	OR	OFF	2005/02/24 15:00
S91	1	("3419595").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/24 15:00
S92	0	wo-2001096119-.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/25 09:03
S93	1	wo-200196119-.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/25 08:59
S94	1	("6352812").PN.	US-PGPUB; USPAT	OR	OFF	2005/02/25 09:00

S95	2	wo-9967097-\$ did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/25 09:04
S96	2	wo-9911459-\$ did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/25 09:04
S97	3979	perfluoroprop\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S98	4274	perfluoroeth\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S99	3212	perfluorometh\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S100	4344	perfluorobut\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S101	1230	perfluoropent\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S102	2830	perfluorohex\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S103	1085	perfluorohept\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S104	6038	perfluorooct\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S105	733	perfluoronon\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S106	2125	perfluorodec\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S107	317263	(ir infrared infra adj red )	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S108	15887	S97 S98 S99 S100 S101 S102 S103 S104 S105 S106	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S109	4962	S108 and S107	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S110	247	S109 and 430/270.1-309.ccl\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:48
S111	13	S110 and oleophil\$	US-PGPUB; USPAT	OR	OFF	2005/03/14 18:49
S112	2	("5466557" "5491046").PN.	US-PGPUB; USPAT	OR	OFF	2005/03/15 12:34